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Type specimens of recent mammals in Naturalis Biodiversity Center. Part 2 Lagomorpha, Erinaceomorpha, Soricomorpha, Chiroptera, Pholidota, Carnivora, Perissodactyla, Artiodactyla, Cetacea (Mammalia)

Pepijn Kamminga, **S.D. van der Mije**

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Type specimens of recent mammals in Naturalis Biodiversity Center. Part 2 Lagomorpha, Erinaceomorpha, Soricomorpha, Chiroptera, Pholidota, Carnivora, Perissodactyla, Artiodactyla, Cetacea (Mammalia)

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Abstract

Finally the type catalogue of the mammal collection of Naturalis Biodiversity Center (Leiden, The Netherlands) is complete. Together with part one, this publication gives a comprehensive overview comprising all known types in the mammal collection.
In total we have listed 1734 type specimens of which 1359 are primary types for 873 names. Of these 812 are types for 385 names of species and subspecies considered valid by Burgin et al. (2018)
Part two covers the remaining orders Lagomorpha, Erinaceomorpha, Soricomorpha, Chiroptera, Pholidota, Carnivora, Perissodactyla, Artiodactyla, Cetacea in the sequence according to Wilson and Reeder (2005).

Keywords

nomenclature, types, Rijksmuseum van Natuurlijke Historie, Temminck, Zoölogisch Museum Amsterdam, *Saguinus Ursula, Geomys cumberlandius, Evotomys proteus*

Introduction

This is the second part of the catalogue of the mammal type in the Dutch national natural history collection in Naturalis Biodiversity Center (Leiden, The Netherlands; hereafter Naturalis) covering the Lagomorpha, Erinaceomorpha, Soricomorpha, Chiroptera, Pholidota, Carnivora, Perissodactyla, Artiodactyla, Cetacea. In addition we added some mammal types discovered after the first part (Van der Mije et al. 2025) was published.

For a general introduction on the mammal collections, staff and its important collectors, methods and instructions for the reader, see the introduction in part 1. (Van der Mije et al. 2025).

Taxonomic issues

During the research of the type collection we have encountered some taxonomic issues. However, as this work is meant to be a catalogue and not a revision, we have indicated the issue at hand and expressed our opinion. Below an alphabetic list of the names involved and a short indication of the issue, for a more extensive discussion see the entry of the name in the catalogue.

Table 1: Taxonomic issues

Protonym	**Issue**

Antilope Dammah Rüppell, 1826	Rüppell, 1826 not Cretzschmar, 1826
Antilope leucotis Temminck, 1853	not Lichtenstein and Peters, 1854
Bos sondaicus Schlegel and Müller, 1842	not Blyth, 1842
Cervus russa Müller, 1840	not Müller and Schlegel, 1845.
Crocidura hutanis Ruedi, 1995	not Ruedi & Vogeler, 1995
Crocidura musseri Ruedi, 1995	not Ruedi & Vogeler, 1995
Dysopes abrasus Temminck, 1826	published in 1826 not 1827
Pteropus hottentottus A. Smith, 1833	possibly nomen dubium, *Vespertilio megalurus* Temminck, 1835 next available name
Felis aurata Temminck, 1825	published in 1825, not 1827
Camelopardalis antiquorum Swainson, 1835	not Jardine, 1835
Globiocephalus Sieboldii Gray, 1846	predates *Globicephala macrorhynchus* (Gray, 1846)
Felis pardina Temminck, 1825	published in 1825, not 1827
Helictis subaurantiaca Swinhoe, 1863	published in 1863, not 1862
Paradoxurus trivirgatus Gray, 1832	the type is probably from Java, the nominate is now allocated to Malaysia
Pteropus vampyrus sumatrensis Ludeking, 1862	nomen nudum
Pediotragus Kelleni Jentink, 1900	*R. c. kelleni* has priority over *R. c. steinhardti* (as in Groves 2020)
Sus Ceramensis Rosenberg, 1867	not Rosenberg 1878
Sus Timoriensis Müller, 1840	predates *Sus celebensis* Müller & Schlegel, 1843
Ursus japonicus Schlegel, 1857	nomen nudum
Vespertilio epichrysus Temminck, 1832	predates *Scotophilus dinganii* (Smith, 1833).
Canis vulpes japonicus Temminck, 1838	not Gray, 1868

Overview of the mammal types in Naturalis

With the publication of this second part we have a complete overview of the mammal types in Naturalis discovered until now (Table 1). The collection has been checked almost entirely, helped by ongoing digitisation efforts. As we have not been able to check all the specimens, in the future new types might emerge. However, we are confident that virtually all type specimens have been locate

We list names authored by 148 authors in total, of which 65 authored 255 species names still in use by Burgin et al. (2020), covering a period from 1758 until as recent as 2021. Of these names, 6 were published in the 18th century, 215 in the 19th century, 31 in the 20th century and 3 after 2000. The most prolific author was C.J. Temminck, who introduced 80 names of the species in Burgin et al. (2020), followed by F.A. Jentink, who is the author of 32 new species names.
The names introduced after 2000 are almost all based on specimens collected much earlier than the publication: the longest time gap (*Eupetaurus tibetensis* Jackson et al., 2021) more than 133 years, the shortest (*Nyctimene tenax marculus* Bergmans, 2001) 8 years after the collecting date. We see an average shelflife of 62 years for these names, even more than the findings of Fontaine et al. (2012), who found an average of ca. 30 years for Tetrapods.

The types originated in 44 countries. Not surprisingly a majority of types is for names of species originating in the former Dutch colonies or trading posts, with the majority described from Indonesia (378 primary types for valid names), followed by Japan (133) and Ghana (61) (Fig. 1).

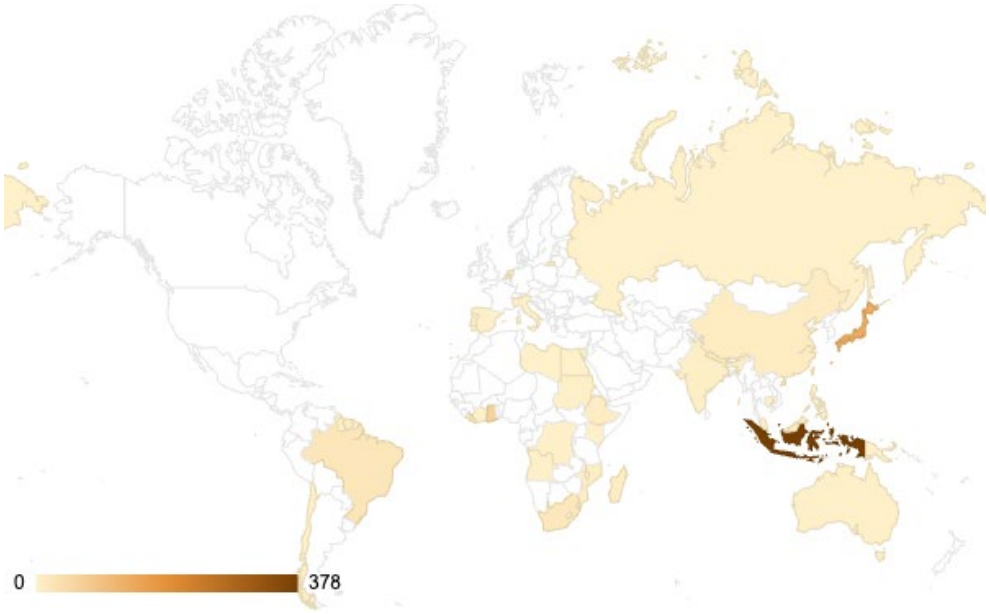

Fig. 1: countries of origin of primary mammal types in the Naturalis collection.

The Naturalis mammal collection houses 1734 type specimens of which 1359 are primary types for 873 names. Of these 812 are types for 385 names of species and subspecies considered valid by Burgin et al. (2018). In table 2 we give an overview of the distribution of these types per order. As the total number of subspecies per order is not given, we limit this overview to valid species names.

Table 2: overview of numbers of names and specimens in the type collection of Naturalis based on Burgin et al. (2020)

	Burgin et al. (2020)	**In catalogue (part 1 and 2)**	
	# species names	**# valid species names with prim types**	**%valid names of Burgin on species level**
Total	6554	304	4,63%
AFROSORICIDA	55	1	1,82%
ARTIODACTYLA (includes Cetacea)	551	17	3,08%
CARNIVORA	305	20	6,56%
CHIROPTERA	1386	86	6,20%
CINGULATA	20	0	0,00%

DASYUROMORPHIA	78	5	6,41%
DERMOPTERA	2	0	0,00%
DIDELPHIMORPHIA	111	2	1,80%
DIPROTODONTIA	155	8	5,16%
EULIPOTYPHLA (Erinaceomorpha and Soricomorpha)	527	15	2,85%
HYRACOIDEA	5	0	0,00%
LAGOMORPHA	98	2	2,04%
MACROSCELIDEA	20	2	10,00%
MICROBIOTHERIA	3	0	0,00%
MONOTREMATA	5	1	20,00%
NOTORYCTEMORPHIA	2	0	0,00%
PAUCITUBERCULATA	7	0	0,00%
PERAMELEMORPHIA	23	0	0,00%
PERISSODACTYLA	21	1	4,76%
PHOLIDOTA	8	1	12,50%
PILOSA	10	0	0,00%
PRIMATES	518	27	5,21%
PROBOSCIDEA	3	0	0,00%
RODENTIA	2552	69	2,70%
SCANDENTIA	24	2	8,33%
SIRENIA	5	0	0,00%
TUBULIDENTATA	1	0	0,00%

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Compiling this catalogue has been a collective effort. The authors are grateful to all staff members of Naturalis and researchers from every corner of the world that have worked in the mammal collection in the last 200 years, cataloguing and labelling specimens and describing new species. We especially would like to thank Jan van

Tol, Lieneke Nijkamp, Laurens de Rooy (Vrolik Museum AMC), Andrew Kitchener (National Museums Scotland), the Naturalis project team comprising Frank Loggen, Roos van der Helm and Sjoerd Groos, who helped digitise and photograph the specimens. Furthermore, we would like to thank Jelle Zijlstra for proofreading the manuscript and Simon Engelberger (University of Vienna) and Kris Helgen (Australian Museum Research Institute) for their constructive comments during the review of part 1 of this catalogue.

Abbreviations

MfN: Museum fur Naturkunde, Berlin (with ZMB as registration number acronym).
MNHN: Muséum national d'Histoire naturelle, Paris, France.
MTKD: Museum für Tierkunde, Dresden.
MZB: Museum Zoologicum Bogoriense, Bogor, Indonesia.
NMNH: Smithsonian, National Museum of Natural History, Washington, USA.
NMB: Naturhistorisches Museum Basel, Switzerland.
NMW: Naturhistorisches Museum Wien, Vienna, Austria.
NRM: Naturhistoriska Riksmuseet, Stockholm, Sweden.
RMCA: Royal Museum for Central Africa, Tervuren, Belgium.
RMNH: Naturalis Biodiversity Center, Leiden, The Netherlands.
SMF: Senckenberg Museum Frankfurt, Frankfurt, Germany.
ZIN RAS: Zoological Institute of the Russian Academy of Sciences.
ZMA: Zoölogisch Museum Amsterdam, The Netherlands (this collection is part of Naturalis since 2010)
ZSM: Zoologische Staatssammlung München, Munich, Germany

Addenda to part 1

Cebidae

Saguinus niger É. Geoffroy, 1803

Simia Ursula Hoffmannsegg, 1807: 85.
Sanguinus Ursula Hoffmannsegg, 1807: 102.

> Possible syntype, RMNH.MAM.64191 (Jentink 1892: 57 *a*), sex unknown, mounted skin, skull in situ. Loc.: Para, Brasil. Ex: MfN, 1824.

Hoffmannsegg (1807) based his description on specimens collected by F.W. Sieber in Brazil. Sieber collected in Northern Brazil (Garbino and Nogueira 2017) for J.C. Hoffmannsegg, while his colleague F. Sellow collected in Amazonia and Southern Brazil. This makes it likely that RMNH.MAM.64191 was collected by Sieber and therefore is part of the type series.

In his catalogue of doubles from the Berlin Museum, Lichtenstein (1823: 1) offers two specimens of *Hapale ursula* for sale from Brazil, without giving any details. According to an exchange list dated 5 May 1824 (Naturalis Archives inv. 4671) a specimen was received from the MfN.

Turni (2024: 157) listed three syntypes in the MfN (ZMB 287, 288, 291) and another in the Museum Halle (IZH-M226).

Geomyidae Bonaparte, 1845

Geomys pinetis cumberlandius Bangs, 1898

Geomys cumberlandius Bangs, 1898: 160.

> Paratype, RMNH.MAM.22667, adult male, study skin and skull. Loc.: Florida Cumberland Island, United States of America. Leg.: W. W. Brown Jr, 10 April 1897. Ex Museum of Comparative Zoologie, Cambridge (Ma)(6504).
> Paratype: RMNH.MAM.22668.

Cricetidae Fischer, 1817

Myodes gapperi Vigors, 1830

Evotomys proteus Bangs in Bailey, 1897: 137.

Paratype, RMNH.MAM.18417, adult male, study skin and skull. Loc.: Hamilton Inlet, Labrador, Canada. Leg.: C.H. Goldthwait, 15 July 1895. Ex Collection of E.A. & O. Bangs (4085; “original number”: 1).
Paratypes: RMNH.MAM.18418–18424.

List of type specimens

LAGOMORPHA Brandt, 1855

Ochotonidae Thomas, 1897

***Ochotona roylei nepalensis* (Hodgson, 1841)**

Lagomys Nepalensis Hodgson, 1841: 854.

Syntype, RMNH.MAM.19204 (formerly 39315) (Jentink 1888: 115 *a*), adult, sex unknown, mounted skin, skull in situ. Loc.: Nepal. Leg.: B.H. Hodgson.
Syntype, RMNH.MAM.39316 (Jentink 1888: 115 *b*), adult, sex unknown, mounted skin, skull in situ. Loc.: Nepal. Leg.: B.H. Hodgson.

Hodgson (1841) described this new specie based on two specimens shot near Gosainthan, Nepal, a male and female. Notwithstanding the fact that we have no exact locality data and the sex is unknown we list the above mentioned specimens as syntypes. A third specimen from the Hodgson collection in Naturalis (RMNH.MAM.39317) originates from Tibet, so clearly doesn't belong in the type series.

Leporidae Fischer von Waldheim, 1817

***Lepus brachyurus* Temminck, 1844**

Lepus brachyurus Temminck, 1844: 44, pl. XI, fig. 2,3,4.

Lectotype, RMNH.MAM.17930 (Jentink 1888: 112 *a*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Paralectotypes: RMNH.MAM.17931–17936.

Husson in Angermann (1966: 323) designated the lectotype. Angermann (1966) restricted the type locality to Nagasaki, Kiushiu, Japan.

***Lepus capensis isabellinus* Cretzschmar, 1826**

Lepus isabellinus Cretzschmar, 1826: 52.

Paralectotype, RMNH.MAM.26780 (Jentink 1888: 113 *a*), adult, sex unknown, relaxed mount, skull in situ. Loc.: Ambukol, Sudan. Leg.: W.P.E.S. Rüppel, [1823–1825].
Paralectotype: RMNH.MAM.26781.

Cretzschmar (1826) based his description on specimens collected southwest of Ambukol. A skull in the collection of Naturalis (RMNH.MAM.26782), collected in Egypt, is therefore not part of the type series.

Mertens (1925: 24) designated a specimen in the SMF (SMF 4314) the lectotype.

Lepus capensis carpi Lundholm, 1955

Lepus salae Jentink, 1880: 57.

Holotype, RMNH.MAM.17929 (Jentink 1887: 238 *a*; 1888: 113 *a*), subadult, sex unknown, mounted skin and skull. Loc.: Mossamedes, Angola. Leg.: J.A. Sala, [ca. 1869].

Lepus nigricollis F. Cuvier, 1823

Lepus melanauchen Temminck, 1836: 13.

Syntype, RMNH.MAM.39318 (Jentink 1888: 112 *b*), adult, sex unknown, mounted skin, skull in situ. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [April 1816 – March 1822].
Syntype, RMNH.MAM.39319 (Jentink 1888: 112 *c*), subadult, sex unknown, mounted skin, skull in situ. Loc.: Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.39320 (Jentink 1888: 112 *e*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Java, Indonesia. Leg.: H. Boie & H.C. Macklot, [June 1826–September 1827].
Syntype, RMNH.MAM.39321 (Jentink 1888: 112 *f*), juvenile, sex unknown, mounted skin. Loc.: Java, Indonesia. Leg.: H. Kuhl & J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.46059 (Jentink, 1887, p. 237: *e*), subadult, sex unknown, skull. Loc.: Java, Indonesia. Leg.: H. Boie, H. & H.C. Macklot, [June 1826–September 1827].
Syntype, RMNH.MAM.46061 (Jentink, 1888, p.112: *e*), subadult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Java, Indonesia. Leg.: G. van Raalten, 1826.
Syntype, RMNH.MAM.46062 (Jentink 1887: 237 *b*), juvenile, sex unknown, skeleton. Loc.: Java, Indonesia. Leg.: H. Kuhl & J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.46063 (Jentink 1887: 237 *a*), juvenile, sex unknown, skeleton. Loc.: Java, Indonesia. Leg.: H. Kuhl & J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.46057 (Jentink,1887: 237 *d*), sex unknown, cranium. Loc.: Java, Indonesia. Leg.: 1830.
Syntype, RMNH.MAM.46058 (Jentink, 1887: 237 *c*), adult, sex unknown, skull. Loc.: Java, Indonesia. Leg.: 1830.

Temminck (1836) mentioned no specimens in his description, so all specimens available to him are considered syntypes.

Reinwardt visited Java several times between April 1816 and March 1822; Kuhl and Van Hasselt travelled together on Java between December 1820 and September 1821; Boie and Macklot collected together in Java from June 1826 until September

1827; G. van Raalten travelled through Indonesia from December 1820 until April 1829 (Van Steenis-Kruseman 1950).

Lepus nigricollis ruficaudatus É. Geoffroy Saint-Hilaire, 1826

Lepus macrotus Hodgson, 1840: 1183.

Paralectotype, RMNH.MAM.63630 (Jentink 1888: 111 *a*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Bengal. Leg.: B.H. Hodgson.

Thomas (1918: 371) designated the lectotype in the NHM (NHMUK 1843.1.12.39).

Nesolagus netscheri (Schlegel, 1880)

Lepus netscheri Schlegel, 1880: 59.

Holotype by monotypy, RMNH.MAM.39322 (Jentink 1887: 239 *a*; 1888: 114 *a*), adult, sex unknown, mounted skin and skeleton. Loc.: Padang-Pandjang (2000 ft.), Sumatra, Indonesia. Leg.: E. Netscher. Received 1879.

Sylvilagus brasiliensis parentum Ruedas, 2017

Sylvilagus parentum Ruedas, 2017: 4.

Holotype, RMNH.MAM.31149, adult female, skin, skull and 2 embryos and body parts in alcohol. Loc.: 110 km from Avanavero airstrip on Amotop road, Nickerie [Sipalawini] District, Suriname. Leg.: D.G. Reeder (DGR.81–37), 15 May 1981.
Paratypes: RMNH.MAM.30798–30801, 31150, 31153, 31154, 31909.

ERINACEOMORPHA Gregory, 1910

Erinaceidae Fischer, 1814

Hemiechinus auritus auritus (Gmelin, 1770)

Erinaceus lybicus Ehrenberg, 1828: [no pagination].

Syntype, RMNH.MAM.13227 (Jentink 1888: 122 *b*), juvenile, sex unknown, relaxed mount, skull in situ. Loc.: Egypt. Leg.: F.W. Hemprich [and C.G. Ehrenberg], [1820–1825]. [Ex.: MfN].

Ehrenberg (1828) did not mention the number of specimens he used for the description of this species, but all specimens were collected together with Wilhelm Hemprich during their expedition to Egypt and Asia Minor from 1820–1825 (Bradley 1967). The date of publication of this taxon is confusing. The title page bears the

date 1830, however Turni et al. (2007: 10) dated this publication from 1828. The end of the issue in which the footnote with this new name is published gives September 1832 as the date on the page following the footnote.

This specimen probably was acquired from the MfN, it was offered in the catalogue of doubles (Lichtenstein 1823: 5) (Naturalis archives inv. 227.273). Two other syntypes are in the MfN (ZMB 732–733; Turni et al. 2007: 10).

Hylomys parvus Robinson & Kloss, 1916

Hylomys parvus Robinson & Kloss, 1916: 269.

> Paratype, RMNH.MAM.23892, female, skin and skull. Loc.: Mt Kerinci, Sumatra, Indonesia. Leg.: H.J.V. Sody (6319), 11 May 1914.

Hylomys suillus suillus Müller, 1840

Hylomys suillus Müller, 1840a: 50.

> Lectotype, RMNH.MAM.39017 (Jentink 1888: 120 *b*), [female], relaxed mount, skull in situ. Loc.: [Kaliki, Mt Gede at c. 1200 ft (400 m), Java, Indonesia]. Leg.: S. Müller, [23 September 1831].
> Paralectotype, RMNH.MAM.39016 (Jentink 1887: 243 *a*; 1888: 120 *a*), male, relaxed mount and skull. Loc.: [Batang Singgalang at c. 2000 ft (650 m), Sumatra, Indonesia]. Leg.: S. Müller, [May or July/August 1834]. Figured in Müller and Schlegel (1843b: pl. 25 figs 4–7, pl. 26 fig. 1). (= *H. suillus maxi.)*

Müller (1840a) preceded the more extensive description by Müller and Schlegel (1843b: pls 25–26, 1845c: 153; see Husson and Holthuis (1955) for the dates of publication). The data on the provenance of these specimens are confusing. The respective labels (written by Jentink) read: (RMNH.MAM.39016) "Cat. a. male, type. 1834, S. Müller. Java." and (RMNH.MAM.39017) "Cat. b. un des types: S. Müller. Sumatra"; sex and date of the latter specimen are not recorded. Müller collected in 1831 in Java and spent the whole of 1834 in Sumatra; the date 1834 and location Java are therefore mutually exclusive.These labels, as well as the entries in Jentink (1887; 1888), apparently have been interchanged.

Müller and Schlegel (1845c: 157) stated that there were indeed two specimens in Naturalis: a male from Mt. Singgalang, Sumatra, and a female from Mt. Gede, Java; the collection dates were not given. The mounted skins cannot be sexed any longer and, as they are described as being very similar in appearance and size, cannot be distinguished in any other way. Müller collected on Mt. Gede in September 1831, on Mt. Singgalang intermittently between May and October 1834, on both trips accompanied by the botanist P.W. Korthals and the artist P. van Oort, until the latter's death on 2 September 1834. In Naturalis is a drawing of the animal (Naturalis archives no inv.) by Van Oort with the caption "B Singalang" (Batang Singgalang, situated on

the south slope of Mt. Singgalang), obviously collected before Van Oort's death, i.e. in May or in July/August of that year (Van Steenis-Kruseman 1950: 297, 376, 394). Thus, the year 1834 can only apply to the male collected in Sumatra.

Although Müller (1840a: 50) stated that both specimens were collected in mountain forest at about 2000 ft, Müller and Schlegel (1845c: 157) recorded that the Javan animal was caught in a coffee bush on the south slope of Mt Gede, at an altitude of over 1200 ft. In his field notes (Naturalis archives no inv.), Müller (though not in his handwriting) specified the locality as Kalike (Kaliki). There is also a drawing of the animal's head by P. van Oort with the caption "Kalieki". Müller, Korthals and Van Oort visited these coffee plantations on 23 September 1831 (Van Steenis–Kruseman 1950: 295).

Hinckley et al. (2023: 26) restricted the type locality to Java and designated RMNH.MAM.39017 the lectotype, necessary because of the mixed type series (RMNH.MAM.39016 is identified as *Hylomys suillus maxi* Sody, 1933).

Hylomys suillus dorsalis Thomas, 1888

Hylomys suillus dorsalis Thomas, 1888: 407.

> Paralectotype, RMNH.MAM.12685, adult female, relaxed mount and skull. Loc.: Mt Kinabalu, Sabah, Borneo, Malaysia. Leg.: J. Whitehead, February 1888. Received January 1889.

The label of this specimen reads "un des types". Although Thomas (1888) apparently gave the measurements of one specimen only, he did not specify how many animals he had before him when describing this species. In a later publication Thomas (1889: 229) mentioned that "five or six" specimens were collected, he lists three in the collection of the NHM and listed one of them as type (*a,* NHMUK 1895.10.4.2). However this does not comply with art. 74.5 of the ICZN for lectotype designations .

Based on morphological and molecular data Hinckley et al. (2023: 14) elevated *Hylomys dorsalis* to specific level and formally designated NHMUK 1895.10.4.2 the lectotype. They overlooked the paratypes (four or five).

Hylomys suillus maxi Sody, 1933

Hylomys suillus maxi Sody, 1933: 438.

> Holotype, RMNH.MAM.23895, male, skin and skull. Loc.: Giesting at 600 m, Lampung, Sumatra, Indonesia. Leg.: H.J.V. Sody, 4 January 1930 (G.25).
> Paratypes: RMNH.MAM.23896–23898.

Apart from the holotype Sody (1933) mentioned a series of five specimens from Atjeh (Aceh) in his collection, brought together by F.J. Nainggolan. Four of these are present in Naturalis. See Becking (1989: 45, 87, 229) for details on the localities and the collector of the paratypes.

Based on morphological and molecular data Hinckley et al. (2023: 14) elevated *Hylomys maxi* to a species.

SORICOMORPHA Gregory, 1910

Soricidae Fischer, 1814

Chimarrogale platycephala (Temminck, 1842)

Sorex platycephalus Temminck, 1842: 23, pl. IV figs. a, a, pl. V fig. 1.

Syntype, RMNH.MAM.39044 (Jentink 1887: 250 *c*; 1888: 131 *b*), sex unknown, relaxed mount and skull. Loc.: [Kyūshū], Japan. Leg.: P.F.B. von Siebold or H. Bürger, [1823–1834]. Syntype, RMNH.MAM.39046 (Jentink 1887: 250 *b*; 1888: 131 *a*), sex unknown, relaxed mount and skull. Loc.: [Kyūshū], Japan. Leg.: P.F.B. von Siebold or H. Bürger, [1823–1834]. Syntype, RMNH.MAM.39047 (Jentink 1887: 250 *a*), sex unknown, skeleton. Loc.: [Kyūshū], Japan. Leg.: P.F.B. von Siebold or H. Bürger, [1823–1834]. Figured in Temminck (1842: pl. IV figs. a, a).

For details concerning the material collected by von Siebold and Bürger in Japan, see under *Mogera wogura*. Bürger mentioned three mounted skins of "*Sorex Kawanezumi*", which is the present species, in his shipping inventories for 1830 and 1834 (Naturalis archives inv. 270.1438). An abridged version of von Siebold's notes on the mammals of Japan, preserved in the archives of Naturalis (Naturalis archives inv. 6092-1), reads: "Dieser Sorex ist selten um Nagasaki, soll häufig in der Landschaft Bungo auf Kiusiu vorkommen". Given von Siebold and Bürger's restriction of movement, the type series is likely collected in Kyūshū. The first instalment of the mammal section of the Fauna Japonica, including pp. 1–24 and plates 1–10, was published in 1842 (Holthuis and Sakai 1970: 72–73). The two skins cannot be identified with certainty with the specimen figured in Temminck's (1842) pl. V.

Jentink (1888: 131 *c*) included in the type series a third skin in alcohol, labelled "Japon". This skin (RMNH.MAM.39045) is now preserved dry, with the skull extracted. The labels of this and of the other specimens are not original. The animal has been misidentified and belongs in the genus *Neomys*, no representative of which occurs in Japan. Since Temminck (1842: 23) already remarks on the absence of *Crossopus* (= *Neomys*) from Japan, the specimen is probably not collected by von Siebold or Bürger and therefore is not one of the types of *Sorex platycephalus*. The label must be erroneous.

Crocidura beccarii Dobson, 1887

Crocidura weberi Jentink, 1890a: 123.

Holotype by monotypy, RMNH.MAM.12721, sex unknown, skin and skull. Loc.: Singkarak [Singkarah], Sumatra, Indonesia. Leg.: M. Weber, [March–June] 1888.

Weber collected in Sumatra during the period March–June 1888 (Weber 1890: i–iv).

Crocidura brunnea brunnea Jentink, 1888

Crocidura brunnea Jentink, 1888b: 164.

Holotype, RMNH.MAM.24226 (Jentink 1888: 134 *a*), sex unknown, relaxed mount and incomplete skull. Loc.: Java, Indonesia. Leg.: S. Müller [1826–1836].
Paratype: RMNH.MAM.24669 (= *Crocidura hutanis*).

Müller collected in Java during the years 1826–1827, 1831–1833 and again in 1836; in western Sumatra during the period June 1833 to December 1835. In 1837 he returned to Leiden (Van Steenis-Kruseman 1950: 296–297, 376).

Ruedi (1995: 227, 237) identified RMNH.MAM.24669 as *Crocidura hutanis* (see below).

Crocidura brevicauda Jentink, 1890a: 124.

Holotype, RMNH.MAM.12719, sex unknown, skin (ex alcohol) and skeleton. Loc.: Tjibodas [Cibodas] near Sindanglaya, Java, Indonesia. Leg.: M. Weber, [July–September] 1888 (275b).

Weber collected in Java during the period July–September 1888 (Van Steenis-Kruseman 1950: 563).

Crocidura melanorhyncha Jentink, 1910c: 198.

Holotype, RMNH.MAM.12724, male, skin and skull. Loc.: Pasir Datar on Mt Pangrango at 3000 ft (c. 1000 m), Java, Indonesia. Leg.: M. Bartels, 25 November 1904.
Paratypes: RMNH.MAM.12725–12726.

Crocidura brunnea pudjonica Sody, 1936

Crocidura brunnea pudjonica Sody, 1936: 52.

Holotype, RMNH.MAM.24011, male, skin and skull. Loc.: Poedjon [Pujon] at 1200 m, Malang District, Java, Indonesia, Leg.: [H. Kool, February 1933].
Paratypes: RMNH.MAM.24005–24010, 24012–24024, 39373.

Sody (1936: 52) examined a series of 25 specimens for his description; 21 of these are present in Naturalis. See Becking (1989: 46, 82–83) for details on the collector and collecting dates of this series. Kool was one of the collectors who worked for H.J.V. Sody.

Crocidura buettikoferi Jentink, 1888

Crocidura büttikoferi Jentink, 1888a: 47.

> Holotype by monotypy, RMNH.MAM.29136 (Jentink 1888: 135 *a*), adult female, skin (ex alcohol) and skeleton. Loc.: Robertsport, Cape Mount, Liberia. Leg.: J. Büttikofer, 22 August 1881.

Crocidura dsinezumi (Temminck, 1842)

Sorex kinczumi Temminck, 1842: pl. IV figs c, c (lapsus for kinezumi).
Sorex kinezumi Temminck, 1842: pl. V fig. 3.
Sorex dsi-nezumi Temminck, 1844: 26.

> Syntype, RMNH.MAM.39031 (Jentink 1888: 134 *a*), sex unknown, relaxed mount and incomplete skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
> Syntype, RMNH.MAM.39032 (Jentink 1888: 134 *b*), sex unknown, relaxed mount and incomplete skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
> Syntype, RMNH.MAM.39033 (Jentink 1888: 134 *c*), sex unknown, relaxed mount and incomplete skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
> Syntype, RMNH.MAM.39374 (Jentink 1887: 250 *a*), sex unknown, skull. Loc.: Japan. Leg.: [P.F.B. von Siebold or H. Bürger, 1829–1834].

For details regarding the material collected by Von Siebold and Bürger in Japan, see under *Mogera wogura*. In his shipping inventories over the period 1830–1834, Bürger mentioned a total of 13 mounted specimens of "*Sorex Kinezumi*" (Naturalis archives inv. 232.1438–1440). Temminck (1844: 27) stated that von Siebold had found this species only once, and that Naturalis owes the majority of specimens to Bürger. In a manuscript containing an abridged version of von Siebold's notes on the mammals of Japan, preserved in the archives of Naturalis (inv. 6092-1), von Siebold said: "Sorex Dsinezumi, die Erdmaus. Diesen seltenen Sorex erhielt ich erst im letzten Jahre meines Aufenthaltes in Japan"; that would have been 1829. Apparently, this manuscript was written after the plates of the Fauna Japonica had been printed, as von Siebold pointed out that the name "*Ki-nezumi*" in pl. V fig. 3 is wrong. In the margin of the manuscript is a correction in Temminck's hand saying: "Kinezumi lisez Dsinezumi" and the name has been corrected accordingly in the text, but not in the plates.

The first instalment of the mammal section of the Fauna Japonica was published in 1842; it contained pp. 1–24 and pls 1–10. The remaining texts and plates were issued in 1844 (Holthuis and Sakai 1970: 72–73). The names *Sorex kincumi* (Temminck 1842: pl. IV) and *Sorex kinezumi* (Temminck 1842: pl. V) would thus take priority over *Sorex dsi-nezumi* (Temminck 1844: 26). Temminck (1844: 26 footnote) already pointed out that the two first-mentioned names are erroneous. The ICZN (1983; opinion 1256) ruled that *Sorex dsinezumi* Temminck, 1843 is to be deemed the correct original spelling of the name (see Melville 1983). Apparently, the Commission

was not aware that the plates had been published in 1842. The correct name therefore is *Sorex dsinezumi* Temminck, 1842.

Jentink (1888: 134) erroneously connected skin *a* (RMNH.MAM.39031) with the skull figured in Temminck's pl. IV figs c, c. In a hand-written note dated 25 January 1910 he has corrected this, stating that he had the skull extracted himself. The original skull *a*, apparently overlooked by Jentink, must be RMNH.MAM.39374, marked "*a*" and lacking the mandibles, in agreement with the entry in Jentink (1887). However, this is probably not the skull figured in pl. IV of the Fauna Japonica: it is larger and does not agree with it in some other features. The animal figured in pl. V cannot be identified beyond doubt with any of the skins.

The type locality has been restricted to Kyushu, Japan by Abe (1967: 246).

Sorex umbrinus Temminck, 1844: 27.

> Syntype, RMNH.MAM.39037 (Jentink 1887: 250 *a*; 1888: 134 *a*), sex unknown, relaxed mount and skull. Loc.: Japan. Leg.: H. Bürger, [1834].

Bürger sent Temminck three specimens of this species in his last consignment to Leiden in November 1834 (Temminck 1844). It arrived in 1835 (for further details, see under *Mogera wogura*). The skins must have been among the four listed as "*Sorex Kinezumi*" in Bürger's shipment inventory for 1834. Only one of these is still present in Naturalis, listed by Jentink (1888) as "type de l'espèce".

Crocidura hutanis **Ruedi, 1995**

Crocidura hutanis Ruedi & Vogel, 1995: 157, fig. 1 (nomen nudum).

Crocidura hutanis Ruedi, 1995: 224, 227.

> Paratype, RMNH.MAM.38360, female, skin and skull. Loc.: Ketambe, Alas Valley, Gunung Leuser National Park, Sumatra. Leg.: M. Ruedi, 23 July 1991 (IZEA 4431).

This name is generally attributed to Ruedi and Vogel (1995) (Wilson and Reeder 2005: 235; Burgin et al. 2020: 52). In this publication the name appears for the first time, but no description is provided apart from the illustrated karyotype and no discerning characters are described "in words" (ICZN art. 13.1). Furthermore, there is no intention by the authors to publish a new name and no types are fixed. We therefore consider the publication of *Crocidura hutanis* in this publication a nomen nudum. A formal description followed later in the same year (Ruedi 1995: 224, 227) which should be the correct reference for this species name. It is clear from this article that the publication by Ruedi and Vogel (1995: 255) was intended to be published later. The holotype is in the IZEA (IZEA 4426).

Another specimen in Naturalis (RMNH.MAM.24669 collected by Müller in Sumatra in 1833–1835) is mentioned in the description, but as additional material, so not part of the type series.

Crocidura maxi Sody, 1936

Crocidura maxi Sody, 1936: 53.

> Holotype, RMNH.MAM.23992, male, skin and skull. Loc.: Eastern Besuki District at about sea level, Java, Indonesia. Leg.: [J.H.F. Bras, July 1929].
> Paratypes: RMNH.MAM.23993, 39034.

See Becking (1989: 46, 78, 228) for details on the collector and collecting dates of this series. Bras was one of the collectors who worked for H.J.V. Sody.

Crocidura musseri Ruedi, 1995

Crocidura musseri Ruedi, 1995: 250, 254.

> Paratype, RMNH.MAM.38376, female, alcohol and skull. Loc.: Mt Rorekatimbo at 2230 m (1"16'S, 120°15'E), Sulawesi, Indonesia. Leg.: M. Ruedi (IZEA 4395), 19 August 1991.
> Paratypes: RMNH.MAM.38377–38379.

For discussion on the citation and type status see *Crocidura hutanis*. The holotype is in the IZEA (IZEA 4397).

Crocidura neglecta Jentink, 1888

Crocidura neglecta Jentink, 1888b: 165.

> Holotype, RMNH.MAM.24663 (Jentink 1888: 134 *a*), female, skin (ex alcohol) and incomplete skull. Loc.: [West] Sumatra, Indonesia. Leg.: S. Müller, [1833–1835].

Müller collected in western Sumatra from June 1833 to December 1835 (Van Steenis-Kruseman 1950: 296–297, 376).

Crocidura Bartelsii Jentink, 1910c: 197.

> Holotype by monotypy, RMNH.MAM.12723, sex unknown, skin and skull. Loc.: Pasir Datar, Mt Pangrango (3000 ft), Java, Indonesia. Leg.: M. Bartels, 29 November 1908.

Crocidura orientalis orientalis Jentink, 1890

Crocidura orientalis Jentink, 1890a: 124.

> Holotype, RMNH.MAM.12722, sex unknown, skin (ex alcohol) and incomplete skull. Loc.: Tjibodas (Cibodas) near Sindanglaja, Java, Indonesia. Leg.: M. Weber, [July–September 1888].

Weber collected in Java during the period July–September 1888 (Van Steenis-Kruseman 1950: 563).

Crocidura orientalis lawuana Sody, 1936

Crocidura orientalis lawuana Sody, 1936: 52.

> Holotype, RMNH.MAM.23987, male, skin and skull. Loc.: Mt Lawu at 2000 m, Java, Indonesia. Leg.: H.J.V. Sody, [11 June 1933] (I.2).
> Paratypes: RMNH.MAM.15461–15462.

See Becking (1989: 46, 83, 85) for the collection dates of this series.

Crocidura poensis (Fraser, 1843)

Crocidura stampflii Jentink, 1888a: 47.

> Syntype, RMNH.MAM.39035 (Jentink 1888: 135 *b*), sex unknown, subadult, skin (ex alcohol) and skull. Loc.: Hill Town, Du Queah River, Liberia. Leg.: J. Büttikofer and F.X. Stampfli, 19 January 1887.
> Syntype, RMNH.MAM.39036 (Jentink 1888: 135 *a*), sex unknown, skin (ex alcohol) and skeleton. Loc.: Schieffelinsville, Junk River, Liberia. Leg.: J. Büttikofer and F.X. Stampfli, 17 January 1887.

See for the localities Büttikofer (1888: 60–61, pl. 5).

Crocidura tenuis (Müller, 1840)

Sorex tenuis Müller, 1840a: 26.
Crocidura macklotii Jentink, 1888b: 163.

> Lectotype for *S. tenuis*, RMNH.MAM.24665 (Jentink 1888: 134 *a*), sex unknown, relaxed mount and skull. Loc.: Timor, Indonesia. Leg.: H.C. Macklot, [1828–1829].
> Holotype for *C. macklotii*, paralectotype for *S. tenuis*, RMNH.MAM.24664 (Jentink 1888: 134 *a*), sex unknown, skin (ex alcohol), incomplete skeleton. Loc.: Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, [1828–1829].
> Paralectotype for *S. tenuis*, RMNH.MAM.52998 (formerly 39040) (Jentink 1887: 250 *a*; 1888: 132 *a*), sex unknown, relaxed mount and skull. Loc.: Timor, Indonesia. Leg.: S. Müller, [October–December] 1828. (= *Suncus murinus, see below*).

Müller (1840a) introduced this name first on page 26 and provided a more formal description on page 50. Jentink (1888b: 162) referred to three specimens of *Sorex tenuis* Müller, all collected in Timor by Müller and Macklot and therefore syntypes of the species. He regarded this series as composite and restricted the name *Crocidura tenuis* to specimen RMNH.MAM.24665, designating it the lectotype. He described the other two specimens as *Crocidura macklotiii* (RMNH.MAM.24664) and *Pachyura mülleri* (RMNH.MAM.52998), respectively. Ruedi (1995: 260) has synonymized *C. macklotii* with *C. tenuis*; *Pachyura mülleri* is a junior synonym of *Suncus murinus* (L., 1766), see below.

Müller and Macklot collected in Timor between October 1828 and November 1829 (Müller, 1842: 132).

Crocidura vosmaeri Jentink, 1888

Crocidura? vosmaeri Jentink, 1888b: 165.

Holotype, RMNH.MAM.24666 (Jentink 1888: 134 *a*), subadult, sex unknown, skin (ex alcohol) and skull. Loc.: Bangka, Indonesia. Leg.: J.H.G. Vosmaer. Received 22 January 1874.

Vosmaer, an administrator of the tin mines at Belinyu, Bangka, sent his collection to Naturalis in September 1873; it was received in January 1874. According to Mees (1986: 11) most of his material was collected around Belinyu.

Myosorex varius (Smuts, 1832)

Sorex varius Smuts, 1832: 108.

Holotype by monotypy, RMNH.MAM.39038 (Jentink 1887: 250 *a*; 1888: 135 *a*), sex unknown, relaxed mount and skull. Loc.: Algoa Bay, South Africa. Leg.: Brehm.

Several 'Brehms' have been collecting natural history specimens in South Africa; we have not been able to ascertain which Brehm collected RMNH.MAM.39038. Temminck reported in a letter to the ministry (11 October 1825), that his correspondent in Capetown, Mr. Brehm, has died (Gijzen 1938: 106). Unfortunately Temminck gave no initial or date of death. According to Gijzen this is probably Joachim Brehm, which adds to the confusion as J. Brehm, the apothecary-botanist, died in 1860 (Biographical Database of Southern African Science). Gijzen (p. 175) listed another "Brehm" as a commercial natural history collector, working in South Africa from 1821–1830 and supplying Naturalis. In 1828 an important consignment from this L. Brehm arrived in Leiden.

Sorex araneus Linnaeus, 1758

Blarina pyrrhonota Jentink, 1888: 131 (nomen nudum).
Blarina pyrrhonota Jentink, 1910b: 167.

Holotype by monotypy, RMNH.MAM.17214 (Jentink 1888: 131 *a*), sex unknown, relaxed mount and skull. Loc.: Surinam [= error].

Jentink (1888: 131) published the name *Blarina pyrrhonota* first as a nomen nudum and formally described the species in 1910. The history of the specimen is unknown. Husson (1963: 35–37) identified it with *Sorex araneus* Linnaeus, 1758, which means that the locality "Surinam" is erroneous.

Sorex araneus pulcher Zalesky, 1937: 213.

Syntype, ZMA.MAM.5123, female, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 23 June 1937 (107/37).
Syntype, ZMA.MAM.5124, female, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 18 June 1937 (102/37).

Syntype, ZMA.MAM.5126, female, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 23 June 1937 (108/37).
Syntype, ZMA.MAM.5127, female, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 18 June 1937 (103/37).
Syntype, ZMA.MAM.5128, male, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 23 June 1937 (105/37).
Syntype, ZMA.MAM.5129, female, skin and skull. Loc.: Griltjeplak, Noordvaarder (c. 53°22'N, 05°11'E), Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 25 June 1937 (112/37).
Syntype, ZMA.MAM.5261, female, skin and skull. Loc.: south of Midsland (53°23'N, 05°17'E), Terschelling, The Netherlands. Leg. : A.C.V. van Bemmel, 28 June 1937 (118/37).
Syntype, ZMA.MAM.5262, male, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 8 June 1937 (101/37).
Syntype, ZMA.MAM.5263, male, skin and skull. Loc.: Noordsvaarder, Terschelling, The Netherlands. Leg.: A.C.V. van Bemmel, 22 June 1937 (106/37).

See Bergmans (2011: 839) for more details.

***Sorex minutus* Linnaeus, 1766**

Sorex exiguus Van den Brink, 1952: 370.

Syntype, RMNH.MAM.63818 (formerly 3641.b), male, skull. [Appelscha, The Netherlands, 4 July 1928. Leg.: F.H. van den Brink. [Data probably erroneous].
Syntype, RMNH.MAM.63819 (= *Sorex araneus*).

The original holotype of this form is a composite specimen. Van den Brink collected the animals in 1928 and donated them to Naturalis on 7 October 1938, where it was prepared (Van den Brink 1955: 90). The skin belongs with either *Sorex araneus* Linnaeus, 1758 or *Sorex coronatus* Millet, 1828; the similarity to the former species was already emphasised by Van den Brink (1952: 370; 1955: 89–90). The skull, however, cannot be distinguished from *Sorex minutus* Linnaeus, 1766; see Van Leeuwen (1954) and Van Laar (1964). It can only be assumed that it originated from another skin, which cannot be traced any longer. Judging the skull characters, all later authors have synonymized *S. exiguus* with *S. minutus*. To fix the name *Sorex exiguus* a lectotype should be designated. In our opinion the skull should be designated as the lectotype, because it is better identifiable than the skin.

***Suncus madagascariensis* (Coquerel, 1848)**

Crocidura (Pachyura) Coquerelii Trouessart, 1880a: 197.
Crocidura (Pachyura) coquerelii Trouessart, 1880b: 86.

Holotype by monotypy, RMNH.MAM.21049 (Jentink 1888: 133 *a*), sex unknown, skin (ex alcohol) and skull. Loc.: Mayotte, Comoro Archipelago. Leg.: F.P.R. Pollen and D.C. van Dam, [May–July 1864].

Trouessart (1880a; 1880b) described this species twice, and both publications appeared in April 1880. A brief diagnosis (Trouessart 1880a) was published in the issue of Le Naturaliste dated 1 April 1880. The far more extensive description (Trouessart 1880b) in the Notes of the Leyden Museum is dated March 1880, but was published April 1880 (Dickinson 2005: 4).

Pollen and Van Dam worked on Mayotte between 26 April and 28 July 1864 (Pollen 1868).

Suncus megalura (Jentink, 1888)

Pachyura megalura Jentink, 1888a: 48.

Holotype, RMNH.MAM.39039 (Jentink 1888: 133 *a*), female, skin (ex alcohol) and skull. Loc.: Schieffelinsville, Junk River, Liberia. Leg.: F.X. Stampfli, 1 March 1886.

See for the collecting locality Büttikofer (1888: 60, pl. 5).

Suncus murinus (Linnaeus, 1766)

Pachyura mülleri Jentink, 1888b: 163.

Holotype for *P. mülleri*, paralectotype for *S. tenuis*, RMNH.MAM.52998 (formerly 39040) (Jentink 1887: 250 *a*; 1888: 132 *a*), sex unknown, relaxed mount and skull. Loc.: Timor, Indonesia. Leg.: S. Müller, [October–December] 1828.

See also *Crocidura tenuis*. Müller collected in Timor between October 1828 and November 1829 (Müller 1842: 132).

Pachyura unicolor Jentink, 1888b: 163.

Holotype, RMNH.MAM.39043 (Jentink 1888: 132 *a*), female, relaxed mount and skull. Loc.: Ternate, Indonesia. Leg.: S.C.J.M. van Musschenbroek, 11 January 1875.

Pachyura semmelinki Jentink, 1888: 257 (nomen nudum).
Pachyura semmelinki Jentink, 1889b: 213.
Suncus indicus semmeliki Koller 1930 315 (incorrect subsequent spelling).
Suncus indicus semmelicki Tate 1944: 7 (incorrect subsequent spelling).

Holotype, RMNH.MAM.39041 (Jentink 1888: 257 *a*), female, skin (ex alcohol) and skeleton. Loc.: Bandaneira, Banda Islands, Indonesia. Leg.: J. Semmelink, 1881.

The name *Pachyura semmelinki* was first published by Jentink (1888: 257) as a nomen nudum, the formal description followed in 1889.

Talpidae Fischer, 1814

***Euroscaptor micrurus* (Hodgson, 1842)**

Talpa Micrurus Hodgson, 1842b: 221.

Jentink (1888: 126) listed RMNH.MAM.36459 (collected in Kashmir by B.H. Hodgson, received in November 1854 from the Museum of the East India Company, through T. Horsfield) as one of the types of *Talpa Micrurus* Hodgson, 1842. Although Gray (1846a: iii) regarded all specimens received from Hodgson as types (see under *Pteropus giganteus*), this probably is erroneous in this case, as Hodgson (1842b) specifically dealt with the mammals of Nepal.

***Mogera insularis* (Swinhoe, 1863)**

Talpa insularis Swinhoe, 1863: 356.

> Syntype, RMNH.MAM.28701 (Jentink 1887: 247 *o*; 1888: 127 *l*), sex unknown, relaxed mount and skull. Loc.: [Tamsuy], Formosa [Taiwan]. Leg.: R. Swinhoe, [December 1861–May 1862]. Received 17 June 1863.
> Syntype, RMNH.MAM.28702 (Jentink 1888: 127 *m*), juvenile, sex unknown, relaxed mount, skull extracted, but not in collection. Loc.: [Tamsuy], Taiwan. Leg.: R. Swinhoe, [December 1861–May 1862]. Received 17 June 1863.

The labels of each specimen (written in Jentink's days) read "un des types du *Talpa insularis* Sw. Nord Ouest Formosa. De M. Swinhoe, 1863". This means that they were collected in Tamsui District, NW Taiwan. Swinhoe worked in this area between December 1861 and May 1862, after which he returned to England (Swinhoe 1863: 348). In 1863 he sent material to Naturalis, which arrived there on 17 June of that year. Thus, the year 1863 given by Jentink (1887; 1888), refers to the date of acquisition. Swinhoe's account on the mammals of Formosa was communicated to the Zoological Society of London on 9 December 1862 and published the following year. Although the description of this species seems to be based on one animal, this is not stated explicitly, nor is a type indicated. There can be no doubt that Swinhoe had the Naturalis specimens before him at the time of writing.

***Mogera wogura* (Temminck, 1842)**

Talpa wogura Temminck, 1842: 19.

Talpa moogura Temminck, 1842: pl. IV figs 1–5 (incorrect original spelling).

> Lectotype, RMNH.MAM.28684 (Jentink 1888: 127 *d*), sex unknown, relaxed mount and skull. Japan. Leg.: H. Bürger, [1829–1834].
> Paralectotypes: RMNH.MAM.16244–16250, 28681–28683, 28685, 28686, 28690–28700.

Bürger sent a final shipment of specimens from Japan to Leiden in November 1834, which arrived there 1835 (Holthuis and Sakai 1970); his lists for 1830–1834 give as many as 42 mounted skins and one skeleton of "*Talpa Mo(o)gura*".

In the text, Temminck (1842) described the present species as *Talpa wogura* and gave the Japanese vernacular name as "Wogure". In plate IV, however, the name is spelled *Talpa moogura*. Apparently, the plates were already printed and the name in the plate could not be corrected any more when Temminck wrote the text. However, there is no evidence that text and plates were distributed on different dates as was assumed by Sherborn and Jentink (1895: 149). In agreement with the text and following all later authors, *Talpa wogura* Temminck, 1842 is the correct original spelling of the name.

Since no mammal material from Japan reached Leiden between 1835 and 1842, all specimens of *Mogera wogura* obtained by von Siebold and Bürger are types. Jentink (1888) does not list skins *j* and *k* (RMNH.MAM.28690, 28691) and alcohol specimens *n* and *o* (RMNH.MAM.28692, 28693) as such, but despite the lack of documentation, there seems every reason to assume that they belong in the extensive series collected by von Siebold and Bürger, so they have been included here. The specimens figured in his pl. IV figs 1–5 cannot be identified with any particular skin or skull.

RMNH.MAM.28681 is considerably larger than the other specimens, probably the reason why Jentink (1888) assumed that it was the only adult within the series. Corbet (1978: 35) stated that it “probably represents *kobeae*”, which he tentatively classified under *Talpa robusta* (Nehring 1891). Following Thomas (1905: 487), he regarded *T. wogura* as the smaller of the two forms and selected Jentink (1888) skin *d* as the lectotype of *Talpa wogura* Temminck, 1842 (wrongly cited 1843). Its present catalogue number is RMNH.MAM.28684, not 16249 as given by Corbet (1978); RMNH.MAM.16249 does not refer to skin *d*, but to skeleton *d*.

Urotrichus talpoides Temminck, 1841

Urotrichus talpoïdes Temminck, 1838b: 286 (nomen nudum).
Urotrichus talpoides Temminck, 1841d: 215.

Syntype, RMNH.MAM.16251 (Jentink 1887: 247 *a*), sex unknown, mounted skeleton. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.16252 (Jentink 1887: 247 *c*), male, skeleton. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.16253 (Jentink 1887: 248 *f*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.16254 (Jentink 1887: 248 *i*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39018 (Jentink 1888: 127 *a*), sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.39019 (Jentink 1888: 127 *b*), sex unknown, relaxed mount, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].

Syntype, RMNH.MAM.39020 (Jentink 1888: 127 *c*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.39021 (Jentink 1888: 127 *d*), sex unknown, alcohol, skull in situ. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39022 (Jentink 1887: 247 *b*), sex unknown, mounted skeleton.Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834]. Figured in Temminck (1842: pl. IV figs 8–11).
Syntype, RMNH.MAM.39023 (Jentink 1887: 247 *d*), female, skeleton. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39024 (Jentink 1887: 248 *e*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39025 (Jentink 1887: 248 *g*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39026 (Jentink 1887: 248 *h*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39027 (Jentink 1887: 248 *j*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39028 (Jentink 1887: 248 *k*), sex unknown, rostrum and mandibles. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39029 (Jentink 1887: 248 *l*), sex unknown, rostrum and mandibles. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39030 (Jentink 1887: 248 *m*), sex unknown, skull. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].
Syntype, RMNH.MAM.39372 (Jentink 1888: 127 *e*), sex unknown, head in alcohol, skull not extracted. Loc.: Japan. [Leg.: P.F.B. von Siebold or H. Bürger, 1823–1834].

The description by Temminck (1841d) followed the first publication of this new name in 1838 as a nomen nudum and preceded his more extensive description of the species in the Fauna Japonica (Temminck 1842: 22, pl. IV figs 6–11). For further details concerning the material collected by von Siebold and Bürger in Japan, see under *Mogera wogura*. Bürger's inventories of shipments over the period 1830–1834 (Naturalis archives inv. 270.1438) mentions 28 skins and one skeleton of "*Condylura lamamo(o)gura*", which is the present species. Therefore, most animals must have been obtained by Bürger. The alcohol specimen *e* (RMNH.MAM.39372), though not listed as a type by Jentink (1888), is included here as well, as it must have been available to Temminck. In the abridged version of von Siebold's notes on the mammals of Japan (Naturalis archives inv. 6092(1)), he said of this species: "Er gehört unter die seltneren Thiere, ist jedoch über die drei großen Inseln verbreitet. V.S. [Von Siebold] fand ihn gewohnlich todt auf den Felder liegen". This can only have been in the surroundings of Nagasaki, Kyūshū, where von Siebold was allowed to move rather freely, so it seems likely that the greater part of the material is from that area. Temminck (1842: 22) stated that the animals were picked up from the ground at altitudes of 1000–1200 ft (c. 300–400 m). The mounted specimen figured in Temminck's (1842) pl. IV cannot be matched with any particular skin.

CHIROPTERA Blumenbach, 1779

Pteropodidae Gray, 1821

Acerodon celebensis (Peters, 1867)

Pteropus celebensis "Schlegel" Peters, 1867: 333.

Paralectotype, RMNH.MAM.27775 (Jentink 1888: 150 *l*), female, skin in alcohol, skull in situ. Loc.: [Northeast] Sulawesi, Indonesia. Leg.: C.B.H. von Rosenberg, May 1864. Paralectotype: RMNH.MAM.37804.

Peters (1867) formally published a manuscript name used by Schlegel. A document in the archives of Naturalis (inv. 247.169) dated October 1866 and specifying a collection of bats sent on loan to Peters mentions the following specimens: (alcohol): "2 Pteropus Celebes v. Rosenberg. 1864"; (skins): "3 Pteropus celebensis, Schl. Soela Mangouli Bernstein" and "1 Pteropus celebensis, Schl. Celebes v. Rosenberg". This means that Peters has all this material at his disposal. Since he restricts the type locality to Sulawesi, only the animals from that island are part of the type series. Andersen (1912: 418) designated the Berlin specimen (ZMB 4012) the lectotype of *Pteropus celebensis* Peters, 1867. This is one of the specimens collected by Von Rosenberg and received from Naturalis.

Jentink (1887; 1888) mentioned the presence of three types. However, one of these, a skull (RMNH.MAM.37813), is from Mangole, Sula Islands, so does not belong in the type series.

Acerodon macklotii macklotii (Temminck, 1837)

Pteropus macklotii Temminck, 1837: 69, pls XXXV fig. 5, XXXVI figs 4–6.

Syntype, RMNH.MAM.37823 (Jentink 1888: 150 *a*), adult male, mounted skin, skull in situ. Loc.: Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, [1828–1829].
Syntype, RMNH.MAM.37824 (Jentink 1888: 150 *b*), female, mounted skin, skull in situ. Loc.: Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, [1828–1829].
Syntype, RMNH.MAM.37825 (Jentink 1888: 150 *c*), adult male, mounted skin, skull in situ. Loc.: Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, [1828–1829].
Syntype, RMNH.MAM.37826 (Jentink 1888: 150 *d*), adult female, mounted skin, skull in situ. Loc.: Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, August 1829.
Syntype, RMNH.MAM.37827 (Jentink 1888: 150 *e*), adult male, mounted skin, skull in situ. Loc.: Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, [1828–1829].
Syntype, RMNH.MAM.37829 (Jentink 1887: 262 *a*), female, skull. Loc.: Kupang, Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, August 1829. Figured in Temminck (1837: pl. XXXVI figs 4–6).

Müller and Macklot collected in the former Dutch part of Timor between October 1828 and November 1829 (Müller 1842: 132). Müller observed this species in the regions of Amarassie and Amabie (Müller 1842: 171).

Other syntypes are in the MfN (ZMB 2630) and in SMF (12438) (Turni and Kock 2008: 16).

Pteropus ochrophaeus "Müller" Jentink, 1887: 262 (in synonymy).

Jentink published a Müller manuscript name as a synonym of *Pteropus macklottii* without providing a formal description. We have not found any subsequent use that would validate this name, therefore this name is not available.

Acerodon macklotii prajae Sody, 1936

Acerodon mackloti prajae Sody, 1936: 51.

> Syntype, RMNH.MAM.33231, female, skin and skull. Loc.: Praya, Lombok, Indonesia. Leg.: [C.L. Heyting], November 1930. Ex: H.J.V. Sody (Lombok 1).
> Syntype, RMNH.MAM.33232, juvenile male (young of RMNH.MAM.33231), skin and skull. Loc.: Praya, Lombok, Indonesia. Leg.: [C.L. Heyting], November 1930. Ex: H.J.V. Sody (Lombok 2).

See Becking (1989: 47, 95–96) for details on the locality and collector. Heyting donated the specimens to H.J.V. Sody. In his original description Sody misspelled *macklotii* as *mackloti.*

Boneia bidens Jentink, 1879

Boneia bidens Jentink, 1879a: 117.

> Holotype, RMNH.MAM.38015 (Jentink 1888: 153 *b*), male, skin in alcohol and skull. Loc.: Bone near Gorontalo, Sulawesi, Indonesia. Leg.: C.B.H. von Rosenberg, [15 July 1864].

The collection date of this specimen is recorded in a hand-written catalogue of Megachiroptera by Jentink, preserved in the archives of Naturalis (inv. 211/97–99).

Chironax melanocephalus melanocephalus (Temminck, 1825)

Pteropus melanocephalus Temminck, 1825b: 190, pls 12, 16 figs 3, 4.

> Lectotype, RMNH.MAM.35728 (Jentink 1887: 266 *a*), female, skeleton. Loc.: [Batuauwel], Bantam District, Java, Indonesia. Leg.: J.C. van Hasselt, [September 1822].
> Paralectotypes: RMNH.MAM.35729–35731.

Jentink (1888) stated that RMNH.MAM.35729 is figured in Temminck's pl. 12, but this is clearly RMNH.MAM.35730, as also pointed out by Andersen (1912: 661). Bergmans

and Rozendaal (1988: 44) designated the lectotype (in their tables 9 and 10 and in the text the wrong catalogue numbers are given).

Temminck (1825b: 190–191) based his description on a catalogue of mammals collected in Java, which Van Hasselt sent to Leiden in December 1822 (Naturalis archives inv. 209.220). In this, he misinterpreted the locality ("batoeauwel") as the local name of the species. In Kuhl and Van Hasselt's field notes, copied by an unknown hand and preserved in the Naturalis archives (no inv.), there is an entry saying they secured some specimens when cutting down a tree. The locality cannot be traced. Van Hasselt travelled through Bantam District in 1822 until mid 1823 (Van Steenis-Kruseman 1950: 220); he died 8 September 1823 (Veth 1879: 35). Bergmans and Rozendaal (1988: 45–46) restricted the type locality to Mt Karang, citing a published letter by Van Hasselt of 14 March 1823 which contains a brief account of his trip to that mountain. In this, Van Hasselt (1823: 342) mentions that he collected three species of bats new to Java, without giving further details. Van Hasselt visited Mt Karang in March 1823, so this cannot be the place where he obtained the present species in September 1822.

Chironax tumulus Bergmans & Rozendaal, 1988

Chironax melanocephalus tumulus Bergmans & Rozendaal, 1988: 46.

Holotype, ZMA.MAM.22101, adult male, alcohol and skull. Loc.: Sungei Moinakom (0°40'N, 124°04'E), Dumoga Bone National Park, N. Sulawesi, Indonesia (625 m). Leg.: F.G. Rozendaal (104), 25/26 January 1983.
Paratypes: RMNH.MAM.33167–33168, 33263–33264, 35726–35727, ZMA.MAM.21638, 22102.

More paratypes are in the NHM (NMHUK 73.1802) and in the United States Naval Medical Research Unit 2, Jakarta (NAMRU DJM-5028).

Cynopterus brachyotis brachyotis (Müller, 1838)

Pachysoma brachyotis Muller [=Müller], 1838: 146.

Syntype, RMNH.MAM.38066 (Jentink 1887: 266 *a*; 1888: 154 *a*), adult male, mounted skin and incomplete skull. Loc.: [Naga Cave near Jammut, left bank of lower] Dewej [Teweh] River, Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38067 (Jentink 1888: 154 *b*), male, mounted skin and skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38068 (Jentink 1888: 154 *c*), female, mounted skin, skull in situ. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38069 (Jentink 1888: 154 *d*), juvenile, sex unknown, mounted skin, skull extracted but not in collection. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38091 (Jentink 1887: 266 *b*), sex unknown, skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].

Syntype, RMNH.MAM.38092 (Jentink 1887: 266 *c*), sex unknown, skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38093 (Jentink 1887: 266 *d*), sex unknown, skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38094 (Jentink 1887: 266 *e*), sex unknown, incomplete skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].
Syntype, RMNH.MAM.38095 (Jentink 1887: 266 *f*), sex unknown, incomplete skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836]. (= *Cynopterus horsfieldi*).
Syntype, RMNH.MAM.38096 (Jentink 1887: 266 *g*), sex unknown, incomplete skull. Loc.: [Naga Cave], Borneo, Indonesia. Leg.: S. Müller, [12 September 1836].

Although Jentink (1887, 1888) only mentions skin and skull *a* (RMNH.MAM.38066) as "un des types", there can be no doubt that all specimens collected by Müller in Borneo are types. Müller (1838: 146) wrote that he encountered this species only once, in fairly large numbers, in a limestone cave on the river Dewej. Later Müller (1847: 388, map) described the exact site of this cave, which he visited on 12 September 1836.

Andersen (1912: 619) regarded all the above specimens as types. He stated that the lower jaw of skull *c* (RMNH.MAM.38092) does not belong with the cranium, which is incorrect. He regarded that jaw as an immature *Cynopterus horsfieldi* Gray, 1843. There may have been some mix-up in Andersen's days, since later skull *f* (RMNH.MAM.38095) has been identified with *C. horsfieldi*.

Cynopterus brachyotis concolor Sody, 1940

Cynopterus brachyotis concolor Sody, 1940a: 393.

Holotype, RMNH.MAM.9850, male, skin and skull. Loc.: Meok, Enggano, Indonesia. Leg.: Saan, 27 June 1936. Ex: MZB (225/36), 12 January 1950.

Sody based his description on five specimens, but only the holotype is in Naturalis. See Sody (1940a: map) for the locality.

Cynopterus titthaecheilus titthaecheilus (Temminck, 1825)

Pteropus titthaecheilus Temminck, 1825b: 198, pl. 15 figs 17–24.

Syntype, RMNH.MAM.38033 (Jentink 1888: 153 *i*), adult male, mounted skin and skull. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38028, (Jentink, 1887: 264 *b*), sex unknown, skeleton. Loc.: Bogor, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (= *Cynopterus horsfieldi*).
Syntype, RMNH.MAM.38029 (Jentink, 1887: 264 *e*), sex unknown, skeleton. Loc.: Bogor, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (= *Cynopterus horsfieldi*).
Syntype, RMNH.MAM.38034 (Jentink, 1888: 153 *j*), female, mounted skin, skull in situ. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].

Syntype, RMNH.MAM.38035 (Jentink, 1888: 153 *k*), adult female, mounted skin, skull in situ. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38036 (Jentink, 1888: 153 *l*), juvenile, sex unknown, mounted skin, skull extracted but not in collection. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (Uncertain identity according to K. Andersen).
Syntype, RMNH.MAM.38037 (Jentink, 1888: 153 *m*), juvenile female, mounted skin, skull in situ. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (Uncertain identity according to K. Andersen).
Syntype, RMNH.MAM.38043 (Jentink, 1887: 265 *g*), sex unknown, skeleton. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38044 (Jentink, 1887: 265 *h*), sex unknown, skeleton. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38045 (Jentink, 1887: 265 *i*), sex unknown, skeleton. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38047 (Jentink, 1887: 264 *c*), sex unknown, juvenile skeleton. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (unidentifiable according to K. Andersen).
Syntype, RMNH.MAM.38048 (Jentink, 1887: 265 *o*), sex unknown, skull. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38049 (Jentink, 1887: 265 *p*), sex unknown, skull. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38050 (Jentink, 1887: 265 *q*), female, skull with dentition. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821].
Syntype, RMNH.MAM.38051 (Jentink, 1887: 265 *r*), sex unknown, juvenile, skull. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (Indeterminable according to K. Andersen).
Syntype, RMNH.MAM.27739 (Jentink, 1888: 154 *qq*), male, skin in alcohol, skull in situ. Loc.: [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [January–September 1821]. (Uncertain identity according to K. Andersen).

The description of this species is based on a great number of specimens of different provenance in the collections in Leiden, Paris and London (Temminck 1825b: 200). The labels of the Naturalis material are not original and are incomplete or inaccurate. Jentink (1887) added to the confusion by mentioning the skeletons collected by Kuhl and Van Hasselt as types with Buitenzorg (Bogor) as the locality, but not the separate skulls (possibly led astray by Temminck's remark on the presence of skeletons). Jentink (1888) did not list the skins sent by the same collectors as types, giving the locality as "Java". Andersen (1912: 607) correctly regarded all specimens collected by Kuhl and Van Hasselt as types of *Pteropus titthaecheilus* Temminck, 1825. RMNH.MAM.63718 (Jentink 1888: skin *h*), still listed in Andersen (1912), cannot be found any longer. The enumeration of types by Tate (1940: 7) is erroneous and incomplete.

The type series is a composite of different taxa. Andersen (1912: 607–608) discussed the identity of Temminck's material. He regarded lost RMNH.MAM.63718 and skins RMNH.MAM.38033–38035, skeletons RMNH.MAM.38042–38046 and

skulls RMNH.MAM.38048–38050 as conspecific beyond doubt and selected these as "the real cotypes" of *P. titthaecheilus* without, however, designating a lectotype.

Kuhl and Van Hasselt collected in the surroundings of Bogor and elsewhere in West Java between January and September 1821, until Kuhl's death on 14 September of that year (Veth 1879: 26; Van Steenis-Kruseman 1950: 220, 303). Temminck (1825b: 200) mentioned Buitenzorg (Bogor) as the locality of the Naturalis material. In Kuhl and Van Hasselt's field notes, copied by an unknown hand and preserved in the Naturalis archives (no inv. number), is an entry in German (by Kuhl): "*Titthaecheilos javanicus* Nobis Pteropus Buitenzorg. Ist gemein in der Gegend von Buitenzorg." In a catalogue of mammals collected in Java which Van Hasselt sent to Leiden in December 1822, he wrote under this species: "Buitenzorg, Tjiminjak in arborum aut rupium vontatibus" (Buitenzorg, Tjiminjak in the hollows of trees or rocks). The locality Tjiminjak (Ciminyak) cannot be traced, but must have been in the surroundings of Bogor.

The labels of two skeletons are obviously wrong. Jentink's (1887) skeletons *d* (RMNH.MAM.38046) and *f* (RMNH.MAM.38042), included by him and by Andersen in the type series, are dated 1827, but give Kuhl as the collector. The label of RMNH.MAM.38046 reads "Java. 1827. Jan.", that of RMNH.MAM.38042 "Tjimmiak Java 1827", clearly Tjiminjak (Ciminyak) is meant. These specimens must have been collected by S. Müller and H.C. Macklot. This is corroborated by a few drawings by P. van Oort in the Naturalis archives, dated "Tjiminjak i Januar 1828". One of these shows the head of a live "Pteropus titthecheilus Tem. Monogr."; date and caption are in Müller's handwriting. The name has been amended, in Temminck's hand, into "Pachysoma titthecheilum" in agreement with Temminck's later monograph (Temminck 1837: 110), in which this drawing was published (pl. XXXV fig. 8). At the turn of 1827/1828, Müller and Van Oort were stationed at Bogor and Batavia (Veth 1879: 65–66). These skeletons must have been included (or prepared from animals included) in the consignment sent to Leiden by Müller on 24 January 1828, which specifies 4 "Pteropus titthecheilus Tem". Therefore, they were not available in 1825 and thus are excluded from the type series.

Cynopterus titthaecheilus terminus Sody, 1940

Cynopterus sphinx terminus Sody, 1940b: 404.

> Holotype, RMNH.MAM.9849, female, skin and skull. Loc.: Nikiniki at 750 m, Timor, Indonesia. Leg.: M.E. Walsh, 3 April 1929. Ex: MZB (2208), 12 January 1950.

Sody (1940b) based his description on six specimens, only the holotype is in Naturalis. *Cynopterus terminus* is considered a full species by Parnaby and Helgen (2023: 646).

Desmalopex leucopterus Temminck, 1853

Pteropus leucopterus Temminck, 1853: 60.

> Holotype by monotypy, RMNH.MAM.37855 (Jentink 1887: 253 *a*; 1888: 140 *a*), male, mounted skin and skull. Loc.: “Manilla”, Phillipines.

The origin of this specimen is badly documented. According to the dealer who sold this specimen to Temminck it originated in the Philippines (Temminck 1853: 60). The specification "Manilla" on the label is of later date; the pedestal gives this locality with a question mark.

Dobsonia beauforti Bergmans, 1975

Dobsonia beauforti Bergmans, 1975: 3.

> Holotype, ZMA.MAM.16476, adult female, skin and skull. Loc.: Nja-njef, Waigeo, Indonesia. Leg.: L.F. de Beaufort, 25 December 1909.
> Paratypes: RMNH.MAM.23894, ZMA.MAM.16472–16474, 16477–16483, 16550, 16547, 16548, 16551, 16552.

Paratype ZMA.MAM.16475 and its embryo ZMA.MAM.16549 have been exchanged with the Australian Museum (AM M9996).

Dobsonia emersa Bergmans & Sarbini, 1985

Dobsonia emersa Bergmans & Sarbini, 1985: 185.

> Paratype, ZMA.MAM.22461, female, skin and skull. Loc.: Owi Island, Papua, Indonesia. Leg.: 11 August 1976. Received from NAMRU-2

The holotype is in the West Australian Museum, Perth. See Bergmans (2011: 841) for details.

Dobsonia peronii grandis Bergmans, 1978

Dobsonia peronii grandis Bergmans, 1978: 6, fig. 1.

> Paratype, ZMA.MAM.19428, female, skin and skull in alcohol. Loc.: Sadrap River, Komodo Island, Indonesia. Leg.: A.P.M. van der Zon, 13 April 1977.

The holotype is in the SMf (SMF 12488). See Bergmans (2011: 841) for details.

Eidolon dupreanum (Schlegel, 1867)

Pteropus dupréanus “Pollen” Schlegel, 1867: 419.
Pteropus Dupreanus Schlegel & Pollen, 1868: 17.

Lectotype, RMNH.MAM.37230 (Jentink 1887: 264 *b*; 1888: 152 *b*), female, mounted skin and skull. Loc.: Nosy Bé, Madagascar. Leg.: F.P.L. Pollen & D.C. van Dam, 17 August 1865.

Schlegel (1867) gave a preliminary and very brief account of this new species in a preview of the forthcoming work 'Recherches sur la faune de Madagascar et de ses dépendences' (Schlegel and Pollen 1868), in which followed an extensive description (p. 17–19). This name is based on a manuscript name by Pollen and the final description clearly refers to one specimen only. Bergmans (1990: 170) formally designated the lectotype.

Jentink (1887: 264; 1888: 152) listed two type specimens in Naturalis, a male and female, both collected by Van Dam in North West Madagascar. This is followed by Andersen (1912: 8). However, this is not correct. Schlegel and Pollen (1868: 172) record this species in an additional list of animals collected by Van Dam on the “Partie continentale du Nord-Ouest de Madagascar” in 1867. The male listed by Jentink (1887: 264 *a*; 1888: 152 *a*; RMNH.MAM.37229) must have been included in this later consignment, though the label or pedestal do not give the collecting date. Therefore, we do not include this specimen in the type series.

Eidolon helvum helvum (Kerr, 1792)

Pteropus stramineus É. Geoffroy Saint-Hilaire, 1803: 48.
Pterocyon paleaceus Peters, 1862b: 423.

Syntype for *P. paleaceus* and possible syntype for *P. stramineus*, RMNH.MAM.27264 (Jentink 1888: 152 *d*), juvenile female, mounted skin, skull in situ. Loc.: Senegal. “Albino”.
Syntype for *P. paleaceus*, RMNH.MAM.27262 (Jentink 1888: 152 *b*), adult female, mounted skin, skull in situ. Loc.: Sennaar. Leg.: W.P.E.S. Rüppell.
Syntype for *P. paleaceus*, RMNH.MAM.27265 (Jentink 1888: 152 *e*), adult male, mounted skin, skull in situ.

É. Geoffroy Saint-Hilaire (1803: 48) based his description on three specimens, two received by the MNHN through Fourcroy and one from the Cabinet of the Dutch Stadhouder (taken to Paris by Napoleon). The latter is probably the specimen depicted in Seba (1734: 91, pl. 57). Temminck (1837: 84) explained how initially both he and É. Geoffroy Saint-Hilaire assumed the specimens originated from Timor (probably based on the origin given in Seba as Ternate). However Temminck concluded, based on new material, that the terra typica is Africa, more specifically Sennaar and Senegal. Temminck (1837: 84) stated that Naturalis received one of the three original types from the MNHN, a female from Senegal. RMNH.MAM.27264 is the only specimen in Naturalis which could be this specimen, although there is no reference to its provenance. This is then one of the possible syntypes for *Pteropus stramineus* É. Geoffroy Saint-Hilaire, 1803. Jentink (1888: 152) listed RMNH.MAM.27265 as one of

the types for *Pteropus stramineus*, attributing this name to Temminck (mislabeled as collected by Forsten in “Celebes”, which is clearly an error).

Peters (1862b) introduced his new name for the specimens from Africa identified by Temminck as *Pteropus stramineus* to separate them from the Asian specimens, for which he reserves the name *Pteropus stramineus* É. Geoffroy Saint-Hilaire, 1803. The specimen from Rüppell (RMNH.MAM.27262) must have been available to Temminck, probably one of the two "*Pteropus* Geoffr." mentioned in the exchange list of specimens received from the SMF in May 1828 (Naturalis archives inv. 255.577).

Leiponyx büttikoferi Jentink, 1881: 60.

> Holotype by monotypy, RMNH.MAM.27269 (Jentink 1888: 152 *a*), adult female, skin in alcohol and skull. Loc.: Mühlenburg Mission, Millsburg, St. Paul River, Liberia. Leg.: J. Büttikofer and C.F. Sala, 18 October 1880.

See Büttikofer (1888: pl. 5) for the locality. In his description, Jentink (1881: 59) correctly stated that the specimen was collected by Büttikofer and Sala, but in 1888 he only mentioned F.X. Stampfli. However, Stampfli joined Büttikofer on his second expedition to Liberia (1886–1887).

Eonycteris spelaea rosenbergii (Jentink, 1889)

Callinycteris rosenbergii Jentink, 1889a: 210, pl. 9 figs 1–4.

> Holotype, RMNH.MAM.27427 (Jentink 1888: *c*), male, skin in alcohol and skull. Loc.: [Tulabollo] near Gorontalo, Sulawesi, Indonesia. Leg.: C.B.H. von Rosenberg, 5 May 1864.

In May 1864 Von Rosenberg collected at Tulabollo, east of Gorontalo (von Rosenberg 1865: 106–117).

Epomophorus anselli Bergmans & Van Strien, 2004

Epomophorus anselli Bergmans & Van Strien, 2004: 253, figs 1–3.

> Holotype, ZMA.MAM.30031 (formerly 21693b), male, alcohol and skull. Loc.: Lisanthu, Kasungu National Park, Malawi (1000 m.). Leg.: H. Jachmann (25), 19 March 1982.
> Paratype: ZMA.MAM.26105.

For details see Bergmans (2011: 841).

Epomophorus gambianus gambianus Ogilby, 1835

Ep.[omophorus] zechi Matschie, 1899: viii, 46.

Syntype, RMNH.MAM.27237 (Jentink 1887: 251 *c*; 1888: 136: *a*), juvenile female, mounted skin and skull. Loc.: Côte d'Or [Ghana]. leg.: H.S. Pel.
Syntype, RMNH.MAM.27238 (Jentink 1887: 251 *d*; 1888: 136: *b*), juvenile male, mounted skin and skull. Loc.: Côte d'Or [Ghana]. leg.: H.S. Pel.
Syntype, RMNH.MAM.27239 (Jentink 1888: 136: *c*), adult female, mounted skin, skull in situ. Loc.: Akra, Côte d'Or [Ghana]. leg.: H.S. Pel.
Syntype, RMNH.MAM.27240 (Jentink 1888: 136: *d*), subadult male, mounted skin, skull in situ. Loc.: Côte d'Or [Ghana]. leg.: H.S. Pel.
Syntype, RMNH.MAM.27241 (Jentink 1887: 251 *b*), juvenile, sex unknown, skull. Loc.: Côte d'Or [Ghana]. leg.: H.S. Pel.
Syntype, RMNH.MAM.54687 (Jentink 1888: 136: *f*), juvenile female, alcohol, skull in situ. Loc.: Côte d'Or [Ghana]. leg.: H.S. Pel.
Syntype, RMNH.MAM.25751 (Jentink 1888: 136: *e*), juvenile, sex unknown, alcohol, skull in situ. Loc.: Côte d'Or [Ghana]. leg.: Nagtglas, 1860.
Syntype, RMNH.MAM.35971 (Jentink 1887: 251: *a*), adult, sex unknown, skeleton (missing). Loc.: Côte d'Or [Ghana]. leg.: Nagtglas, 1861.

Matschie (1899) referred to two specimens in Temminck (1853: 67–68) and the specimens listed by Jentink (1887: 251; 1888: 136) under *Ep. macrocephalus*. Andersen (1912: 541) designated one of the specimens in the MfN the lectotype, however in our opinion Andersen is not unambiguous as there are three specimens (ICZN art. 74.5) collected by Baumann in 1894 with the same data. Turni and Kock (2008: 9) however follow Andersen and list one of these as lectotype (ZMB 10170, 10171).

Epomophorus labiatus (Temminck, 1837)

Pteropus labiatus Temminck, 1837: 83, pl. XXXIX figs 1–3.

Lectotype, RMNH.MAM.27342 (Jentink 1887: 251 *b*; 188b: 137 *c*), juvenile female, mounted skin and skull. Loc.: Sennar, Sudan. Leg.: P.-E. Botta, [1830–1833]. Figured in Temminck (1847: pl. XXXIX fig. 3).

Temminck (1837) based his description on four specimens: two in the MNHN (collected by Botta) and two in Naturalis. Andersen (1912: 530) erroneously regarded only the Naturalis specimens as types. Since one of those (the male of unknown provenance, figured in Temminck 1847: pl. XXXIX, figs 1, 2) was no longer present in Leiden, Andersen regarded the animal collected by Botta as "Type of species", thereby designating it the lectotype of *Pteropus labiatus* Temminck, 1837. Based on

Temminck's description and plate, Bergmans (1988: 105) identified the missing paralectotype with *Epomophorus minor* Dobson, 1880.

Botta collected in Sennar between 1830 and 1833 (Bauchot et al. 1990: 64).

Epomophorus anurus Heuglin, 1865: 12.

Syntype, RMNH.MAM.27341 (Jentink 1887: 251 *a*; 1888: 137 *b*), adult female, mounted skin and skull. Loc.: [Bongo] Abyssinia, Ethiopia. Leg.: Th. von Heuglin [1863–1864]. Received 1865.

Epomophorus wahlbergi (Sundevall, 1846)

Pteropus Wahlbergi Sundevall, 1847a: 118.

Paralectotype, RMNH.MAM.27257 (Jentink 1887: 251 *a*; 1888: 137 *a*), adult female, mounted skin and skull. Loc.: Port Natal (Durban), South Africa. Leg.: J. Wahlberg, [1839–1841]. Ex: NRM, C.J. Sundevall, 1846.

Sundevall (1847a) did not state how many specimens he received from Wahlberg, though it is clear that there are more than one. Among material sent to Leiden on 26 May 1846 by Sundevall (Naturalis archives inv. 257.1191) was a "Pteropus n.sp. (*Wahlbergi*) Caffernland Sign. nº. 1045" and further: "Obs. die neuen Sp. sind beschrieben in Vetensk. Acad= Öfversigt, Maj 1846 – welches Nummer aber noch nicht publicirt ist" (see Andersen 1912: 526, for the possible publication date of Sundevall's description). Andersen (1912: 527) designated a specimen in the NRM (no. 1040) the lectotype.

During his first sojourn in South Africa, Wahlberg collected extensively in and around Port Natal between June 1839 and July 1841, and perhaps again during short periods in 1842 and 1843 (Gunn and Codd 1981: 367–368).

Epomops buettikoferi (Matschie, 1899)

Epomophorus büttikoferi Matschie, 1899: viii, 45.

Holotype, RMNH.MAM.19640 (Jentink 1888: 137 *c*), adult male, skin in alcohol and skull. Loc.: Schieffelinsville, Junk River, Liberia. Leg.: F.X. Stampfli, 3 August 1884.

Matschie (1899) described this new species based on a single specimen in Naturalis, listed by Jentink (1888a: 50) as *Epomophorus gambianus* Ogilby, 1835. See Büttikofer (1888: pl. 5) for the locality.

Lissonycteris angolensis goliath Bergmans, 1997

Lissonycteris angolensis goliath Bergmans, 1997: 11, 46.

Paratype, ZMA.MAM.24719, adult female, study skin and skull. Loc.: Gleneagles, Inyanga, Zimbabwe (1830 m). Leg.: S. Irwin (T1853), 19 March 1970. Ex NHMBZ (59830).

The holotype is in the Natural History Museum in Bulawayo, Zimbabwe (NHMBZ 59831). See Bergmans (2011: 841).

Lissonycteris angolensis petraea Bergmans, 1997

Lissonycteris angolensis petraea Bergmans, 1997: 11, 44.

> Paratype, ZMA.MAM.25180, female, skin in alcohol and skull. Loc.: 10 km from Agaro, Ethiopia (1650 m). Leg.: J. Dorst (4050), 10–13 June 1968. Ex MNHN (MNHN CG 1972–482).

The holotype is in the MNHN (MNHN CG 1972–482). See Bergmans (2011: 842).

Macroglossus minimus lagochilus Matschie, 1899

Macroglossus lagochilus Matschie, 1899: viii, 97.

> Paratype: RMNH.MAM.32844 (Jentink 1887: 269 *j*; 1888: 159 *k*), adult female, mounted skin and skull. Loc.: Ambon, [Indonesia]. Leg.: S. Müller and H.C. Macklot, September 1827 (= *Syconycteris australis major*).

In the heading of the description of this new species Matschie (1899) referred to all the specimens from Ambon listed by Jentink (1888: 159, under *M. minimus*). Later, with the designation of the (holo)type in the MfN (ZMB 3248; Turni and Kock 2008: 10), he only specified RMNH.MAM.32844, we follow this. This specimen had been identified as *Syconycteris australis papuana* Matschie, 1899 (see Jentink 1902) and later as *Syconycteris australis major* Andersen, 1911.

Macroglossus minimus nanus Matschie, 1899

Macroglossus nanus Matschie, 1899: viii, 98.

> Paratype, RMNH.MAM.45847 (1888: 159 *x*), adult female, alcohol and skull. Loc.: New Britain, Papua New Guinea. Leg.: O. Finsch, 1888. Ex: Schneider, 1888.

The holotype is in the MfN (ZMB 9308; Turni and Kock 2008: 10).

Megaerops ecaudatus (Temminck, 1837)

Pachysoma ecaudatum Temminck, 1837: 94.

> Holotype by monotypy, RMNH.MAM.38025 (Jentink 1887: 266 *a*; 1888: 155 *a*), adult female, mounted skin and skull. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller, [June 1833–December 1835].

Müller collected in the surroundings of Padang during various periods between June 1833 and December 1835 (Van Steenis-Kruseman 1950: 296–297, 376).

Myonycteris leptodon Andersen, 1908

Myonycteris leptodon Andersen, 1908b: 450.

Paratype, RMNH.MAM.17359 (Jentink 1888: 152 *a*), adult male, study skin and skull, body on alcohol. Loc.: Junk river, Schieffelinsville, Liberia. Leg.: F.X. Stampfli, 14 August 1884.

Myonycteris relicta Bergmans, 1980: 171.

Myonycteris relicta Bergmans, 1980: 171.

Holotype, RMNH.MAM.27909, adult male, skin and skull. Loc.: Mukanda River, Lukone area, Shimba Hills, Kenya. Leg.: R. Kyongo, 30 July 1978 (RK 594).

Two paratypes are in the MfN (ZMB 54936–54937).

Nanonycteris veldkampii (Jentink, 1888)

Epomophorus veldkampii Jentink, 1888a: 51.

Holotype by monotypy, RMNH.MAM.20400 (Jentink 1888: 138 *a*), adult female, skin in alcohol and skull. Loc.: Buluma, Fisherman Lake [Lake Pisa], Liberia. Leg.: J. Büttikofer and C.F. Sala, 19 April 1881.

See for the locality Büttikofer (1888: pl. 5).

Nyctimene keasti babari Bergmans, 2001

Nyctimene keasti babari Bergmans, 2001: 132.

Holotype, RMNH.MAM.63794 (formerly 1540), male, skin in alcohol and skull. Loc.: Babar, Indonesia. Leg.: K.S. Schädler, [June 1898].

According to Fransen et al. (1997: 291) Schädler collected on Babar between 25 March and 15 May 1898. In the accesion books of Naturalis is in a later hand written "June 1898". The latter date is followed by Bergmans (2001).

Paranyctimene tenax tenax (Bergmans, 2001)

Nyctimene (Paranyctimene) tenax tenax Bergmans, 2001: 145.

Holotype, ZMA.MAM.25360, adult female, skin in alcohol and skull, Loc.: upstream of Anadea, 32 km. SSW of Wau, Morobe Province (850 m.), Papua New Guinea. Leg.: B.M. Beehler, 10 August 1978. Ex: PNG National Museum (24906).

Paranyctimene tenax marculus (Bergmans, 2001)

Nyctimene (Paranyctimene) tenax marculus Bergmans, 2001: 145.

> Paratype, RMNH.MAM.36659, adult male, skin in alcohol and skull. Loc.: Kebar valley, SE Waigeo, West Papua, Indonesia. Leg.: L. and S. Quate, 28 January 1962 (BM-NG 866). Paratypes: 36660–36668.

The holotype is deposited in the MZB (MZB 26626, formerly ZMA.MAM.25428).

Pteropus alecto alecto Temminck, 1837

Pteropus alecto Temminck, 1837: 75.
Pteropus alecton Temminck, 1853: 58.

> Possible holotype by monotypy, RMNH.MAM.33643 (Jentink 1887: 260 *a*), adult, sex unknown, skeleton. Loc.: Menado, Sulawesi, Indonesia. Leg.: [E.A. Forsten?].

Temminck (1837: 76) based his description on a single specimen in alcohol, its skull apparently extracted, from Manado district, Sulawesi. This specimen is no longer present in the spirit collection of Naturalis. Jentink (1887: 260 cat. *a*) listed RMNH.MAM.33643 as the type, however added to the confusion by stating that this specimen was collected by Forsten, though this does not appear on the label. If Jentink is correct, it cannot be the type of *Pteropus alecto* Temminck, 1837, as Forsten arrived in Sulawesi in March 1840 (Veth 1879: 98).

Later Temminck (1853: 59) amended the spelling of the name to *Pteropus alecton* and referring to his earlier description, he confirmed that the species is based on a single specimen, but now mentions additional material obtained since. This included specimens collected by Forsten (p. 60). Somewhat enigmatically, there are no specimens of *P. alecto* in Naturalis collected by Forsten, which might have led Jentink (1887) to ascribe RMNH.MAM.33643 to Forsten's collections.

Andersen (1912: 367) discussed Jentink's suggestion that RMNH.MAM.33643 is the skeleton of the holotype. He is not convinced of this and points out that its characters do not quite agree with those described by Temminck (1837: 75–76): the forearm length of RMNH.MAM.33643 is greater and the skull does not seem to be of a very old animal as judged by Temminck. However, there is no concrete evidence linking RMNH.MAM.33643 to Forsten and based on the teeth the specimen is of considerable age. It is possible that the original alcohol specimen, due to deterioration has been prepared as a skeleton. We therefore list this specimen as the possible holotype.

Pteropus alecto aterrimus Matschie, 1899

Pteropus aterrimus Temminck, 1846: 333 (nomen nudum).
Pt. [nicobaricus] aterrimus "Temminck" Matschie, 1899: 17.

Syntype, RMNH.MAM.37831 (Jentink 1887: 260 *b*; 1888: 147 *a*), male, mounted skin and skull. Loc.: Bawean, Indonesia. Leg.: P.-M. Diard, [1841].
Syntype RMNH.MAM.37832 (Jentink 1888: 147 *b*), male, mounted skin, skull in situ. Loc.: Bawean, Indonesia. Leg.: P.-M. Diard, [1841].
Syntype, RMNH.MAM.37833 (Jentink 1888: 147 *c*), female, mounted skin, skull in situ. Loc.: Bawean, Indonesia. Leg.: P.-M. Diard, [1841].
Syntype, RMNH.MAM.37834 (Jentink 1888: 147 *d*), female, mounted skin, skull in situ. Loc.: Bawean, Indonesia. Leg.: P.-M. Diard, [1841].

Temminck (1846: 333) named this new fruit bat from the Bawean Islands and from Kambangan Island without providing a description. Later Temminck (1853: 59) regarded the Bawean animals collected by Diard (p. 60) as belonging in his *P. alecto*; he did not mention Kambangan Island here. This was followed by Jentink (1888: 147), who erroneously included the Bawean specimens in the type series of *Pteropus alecto* Temminck, 1837.

Matschie (1899: 17) formally described the Bawean form as *Pt. aterrimus* Temminck, regarding it as an "Abart" of *Pteropus nicobaricus* Fitzinger, 1861. He referred to Temminck (1846; 1853) and to Diard's series from Bawean and to one of the Diard specimens in the MfN, received from Naturalis in 1862. Although Matschie's description is based on the Berlin specimen, this is not designated as the type. Hence all animals collected by Diard on Bawean belong in the type series. Andersen (1912: 365), discussing Temminck's and Matschie's publications, referred to the Berlin specimen (ZMB 2631) as type of *Pt. [nicobaricus] aterrimus* Matschie, 1899, however this does not qualify as a lectotype designation (ICZN art. 74.5). Turni and Kock (2008: 17) erroneously listed this specimen as holotype. One of the types (Jentink 1888: 147 *e*), is no longer present in the collection of Naturalis.

Diard visited Bawean in 1841, before he returned to Europe in September of that year (Van Steenis-Kruseman 1950: 136). The labels bear the locality "Bawean Kambangan" which makes no sense, as Bawean Island is north of Java, Kambangan Island at Java's south coast. This apparent confusion probably goes back to Temminck's (1846) record of *P. aterrimus* for both localities. There can be no doubt that the type series is from Bawean.

Pteropus aruensis **Peters, 1867**

Pteropus melanopogon var. A. aruensis "Schlegel" Peters, 1867: 330.

Syntype, RMNH.MAM.37887 (Jentink 1887: 256 *a*; 1888: 143 *a*), female, mounted skin and skull. Loc.: Wokam, Aru islands, Indonesia. Leg.: C.B.H. von Rosenberg, 24 March 1865.
Syntype, RMNH.MAM.37888 (Jentink 1887: 256 *b*; 1888: 143 *b*), male, mounted skin and skull. Loc.: Wokam, Aru islands, Indonesia. Leg.: C.B.H. von Rosenberg, 14 May 1865.

Syntype, RMNH.MAM.37889 (Jentink 1887: 256 *c*; 1888: 143 *c*), female, mounted skin and skull. Loc.: Wokam, Aru islands, Indonesia. Leg.: C.B.H. von Rosenberg, 13 May 1865.
Syntype, RMNH.MAM.36735 (Jentink 1887: 254 *a*; 1888: 141 *a*), female, mounted skin and skull. Loc.: Wokam, Aru islands, Indonesia. Leg.: C.B.H. von Rosenberg, 7 April 1865. (= *P. macrotis*).

Peters (1867) referred to this form as *Pteropus melanopogon* "var. A. *aruensis* Schlegel", thereby formally publishing a manuscript name used by Schlegel. He did not specify his material. Andersen (1912: 242–243) regarded the specimen in the MfN (ZMB 4962, received from Naturalis) as "type", however this does not qualify as a lectotype designation (ICZN art. 74.5). In a list of Chiroptera sent on loan to Peters in October 1866 (Naturalis archives inv. 247.169) seven skins of "Pteropus aruensis, Schl. Aroe v. Rosenberg." (field numbers specified) are mentioned. This means that Peters had all these specimens before him when describing this form, and they all are part of the type series.

Only four of these seven specimens are still present in Naturalis, one of them (RMNH.MAM.36735) is the holotype of *Pteropus macrotis* Peters, 1867 and of *Pteropus insignis* von Rosenberg, 1867 (see below). The Berlin lectotype too, almost certainly is one of this series. According to Matschie (1899: 14) and Andersen (1912: 243), this had been collected by H.A. Bernstein, who travelled through the eastern islands of the Netherlands East Indies at about the same time as Von Rosenberg, and whose specimens were included in the loan sent to Peters in 1866. However, Bernstein never visited the Aru Islands (Veth 1879: 150–155) and the material of the two collectors must have been mixed up.

Andersen (1912: 243) discussed two further species described by Von Rosenberg (1867: 31) from the Aru islands: *Pteropus rubiginosus* and *Pteropus fumigatus*. The former is Von Rosenberg's no. 23, part of the loan sent to Peters; the other was no. 56. None of these two specimens is catalogued by Jentink (1887; 1888) and they are no longer present in Naturalis. Therefore, Andersen regarded these forms as unidentifiable. Apart from the new forms he described, Von Rosenberg identified the fruit bats collected in the Aru Islands as *P. argentatus*, a name that he attributed to Wallace; see Jentink (1887; 1888), who wrongly referred to that name as "v. Rosenberg MS". See Andersen (1912: 241–243) for the discussion of *Pteropus argentatus* Gray, 1858.

Pteropus caniceps Gray, 1870: 107.

Pteropus caniceps Gray, 1870: 107.

Possible paralectotype, RMNH.MAM.37752 (Jentink 1888: 150 *a*), adult male, mounted skin, skull in situ. Loc.: Batjan [Bacan], Indonesia. Leg.: A.R. Wallace, [October 1858–April 1859]. Received 1860.
Possible paralectotype: RMNH.MAM.37753.

Gray (1870: 107) did not specify the number of specimens he had before him. At the meeting of the Zoological Society of London on 11 January 1860, Gray (1860) had enumerated the mammals collected by Wallace on Bacan which the NHM had received; among these, there were three species of Pteropus, totalling 13 specimens. This is less than the 20 "large" bats that Wallace had specified for his first shipment from Bacan (Wallace in Baker 2001: 335). Apparently, the NMH purchased only 18 vertebrates other than birds from Bacan in January 1860 (accession number 1860.1.10) from Wallace's agent S. Stevens (Baker 2001: 279). One out of this series (NHMUK 1860.1.10.1) was designated the lectotype by Andersen (1912: 196–197). According to Dobson (1878: 68) Gray described the species "from a single specimen" (probably "Pteropus, no. 3", Gray 1860: 4). Therefore, it seems unlikely that the Naturalis specimens were among those studied by Gray for his 1870 catalogue and Jentink (1888: 150) erroneously listed them as types.

The year 1860 given on the labels must apply to the date when the material arrived in Leiden, since Wallace collected in Bacan between October 1858 and April 1859 (Wallace 1869: 36; Baker 2001: 278).

Pteropus chrysoproctus **Temminck, 1837: 67.**

Pteropus chrysoproctus Temminck, 1837: 67.

Syntype, RMNH.MAM.37984 (Jentink 1888: 144 *e*), male, mounted skin and skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September] 1828.
Syntype, RMNH.MAM.37985 (Jentink 1888: 144 *f*), adult male, mounted skin, skull extracted but not in collection. Loc.: Ambon, [Indonesia]. Leg.: S. Müller and H.C. Macklot, [April or September] 1828.
Syntype, RMNH.MAM.37986 (Jentink 1888: 144 *g*), female, mounted skin and skull. Loc.: Ambon, [Indonesia]. Leg.: S. Müller and H.C. Macklot, [April or September] 1828.
Syntype, RMNH.MAM.37987 (Jentink 1888: 144 *h*), juvenile female, mounted skin and skull. Loc.: Ambon, [Indonesia]. Leg.: S. Müller and H.C. Macklot, [April or September] 1828.
Syntype, RMNH.MAM.37988 (Jentink 1888: 144 *i*), juvenile male, mounted skin and skull. Loc.: Ambon, [Indonesia]. Leg.: S. Müller and H.C. Macklot, [April or September] 1828.
Syntype RMNH.MAM.38001, female, skull. Loc.: Ambon, [Indonesia]. Leg.: H.C. Macklot, September 1828 (= *P. griseus*).

Temminck (1837: 68) referred to four specimens preserved in alcohol, collected in Ambon by Müller and Macklot, which were mounted later. However, the present series consists of five specimens, all with the same provenance. Jentink (1888) catalogued four mounted skins as types. Temminck (1837) also mentions that the teeth of one of the males showed signs of very old age. Unfortunately, only one of the skulls of the two adult males is still present in Naturalis and this damaged skull is extracted later. The skull which was figured in pl. XXXVI (fig. 2) is no longer present in Naturalis, so that particular specimen cannot be identified beyond doubt. Andersen (1912: 263) has

inexplicably disregarded skin RMNH.MAM.37984 and misquoted Jentink by listing only the skins RMNH.MAM.37985–37988 as types. Since it cannot be traced which specimen may have been omitted by Temminck, all five are here regarded as syntypes. Furthermore Turni and Kock (2008: 14) list another syntype (ZMB 2626) in the MfN.

Helgen (pers. com 2002) has identified the skull RMNH.MAM.38001 as probably *Pteropus griseus*.

Müller and Macklot visited Ambon between 29 March and 20 April 1828 (Müller 1841: 94, 115) and returned there in September of that year (Müller 1840b: 10)

Pteropus conspicillatus chrysauchen Peters, 1862

Pteropus mysolensis Gray, 1870: 105.

Syntype, RMNH.MAM.37795, adult male, study skin, skull in situ. Loc.: Misool, Indonesia. Leg.: A.R. Wallace, 1860. Ex.: G.E. Mason. Ex.: NHM.

Gray (1870) based his new name on specimens in the NHM. RMNH.MAM.37795 bears an original label of the British Museum (NHM) stating “one of the types”.

Pteropus dasymallus dasymallus Temminck, 1825

Pteropus dasymallus Temminck, 1825b: 180, pls 10, 15 figs 10, 11.

Holotype by monotypy, RMNH.MAM.37842 (Jentink 1887: 252 *a*; 1888: 138 *a*), sex unknown, mounted skin and skull. Loc.: [Ryukyu Islands], Japan. Leg.: J. Cock Blomhoff, [c. 1823]. Received August 1825.

In the archives of Naturalis is a manuscript containing an abridged version of Von Siebold's notes on the mammals of Japan, used by Temminck (1842: 12) as basis for the mammal volume of the Fauna Japonica. Of the present species this gives as distribution Southern Kiushiu island, Satsuma and Jakunosima [Yaku-shima] Island, more common on the Liukiu Islands. It further rectified the earlier publication by Von Siebold (1824: 13), where Nagasaki and Jedo [Tokyo] were given as origin.

Regarding the holotype, the manuscript reads: "Das erste Exemplar dieser seltenen Rousette verdankt das Museum der gütigen Mittheilung des Ritters J. Cock Blomhoff. Es ist dasselbe, welches v.S. bei seiner Ankunft in Japan 1823 zu beobachten Gelegenheit hatte, und in s. Spicileg. Faunae Japonicae unter der Benennung Pteropus rubricollis, Geoffr. aufzählte”. J. Cock Blomhoff was head of the Dutch trading post on Deshima at Nagasaki 1817–1824. The provenance of this animal is not recorded.

Andersen (1912: 162) stated that "in recent times the species has only been obtained in the S. Liu-kiu Islands”, but Kuroda (1933a: 312–313) pointed out that it also occurs elsewhere in the archipelago. Since he knew of no recent records from

Yaku-shima, Kuroda suggested that the nearby island of Kuchino-Erabu may have been the source of the bats. Therefore, he restricted the type locality of *P. dasymallus* to Kuchino-Erabu-shima in the northern Ryukyu Archipelago. However, this remains speculative.

Pteropus griseus pallidus Temminck, 1825

Pteropus pallidus Temminck, 1825b: 184, pl. 15 figs 8, 9.

> Syntype, RMNH.MAM.37857 (Jentink 1887: 255 *a*; 1888: 141 *a*), male, mounted skin and skull. Loc.: Banda, Indonesia. Leg.: C.G.C. Reinwardt, [18 May–26 June 1821]. (Figured in Temminck 1825b: pl. 15 figs 8, 9).
> Syntype, RMNH.MAM.37858 (Jentink 1887: 255 *b*; 1888: 141 *b*), juvenile, sex unknown, mounted skin and skull. Loc.: Banda. leg.: C.G.C. Reinwardt, [18 May–26 June 1821].

Temminck (1825b) described this species from four specimens in Naturalis and one in MNHN. Only two of the Leiden specimens are still present. The other two are now in the MfN (ZMB 2632, 4755; Peters 1867: 326; Andersen 1912: 137; Turni and Kock 2008: 18). Andersen wrongly regarded a third specimen in Naturalis (RMNH.MAM.37859, collected in Banda by E.A. Forsten) as belonging in the type series. Forsten visited Banda in 1842 (Veth 1879: 107), so this animal cannot be one of Temminck's types.

Reinwardt visited the Banda islands between 18 May and 26 June 1821 (Reinwardt 1858: 374, 420).

Pteropus hypomelanus hypomelanus Temminck, 1853

Pteropus hypomelanus Temminck, 1853: 61.

> Syntype, RMNH.MAM.33640 (Jentink 1888: 148 *d*), adult male, mounted skin and skull. Loc.: Ternate, Indonesia. Leg.: E.A. Forsten, [June–September 1841].
> Syntype, RMNH.MAM.33638 (Jentink, 1888: 148 *b*), adult male, mounted skin, skull extracted but not in collection. Loc.: Ternate, Indonesia. Leg.: E.A. Forsten, [June–September 1841]. (= *P. caniceps* Gray, 1870).
> Syntype, RMNH.MAM.33639 (Jentink, 1888: 148 *c*), subadult female, mounted skin, skull extracted but not in collection. Loc.: Ternate, Indonesia. Leg.: E.A. Forsten, [June–September 1841].
> Syntype, RMNH.MAM.33641 (Jentink 1887: 261 *a*), sex unknown, skull. Loc.: Ternate, Indonesia. Leg.: E.A. Forsten, [June–September 1841]. (= *P. caniceps* Gray, 1870).
> Syntype, RMNH.MAM.33642 (Jentink, 1887: 261 *e*), juvenile, sex unknown, incomplete skull. Loc.: Ternate, Indonesia. Leg.: E.A. Forsten, [June–September 1841].

Andersen (1912: 128) pointed out that the type series is composed of different species, however did not select a lectotype. He identified RMNH.MAM.33638 and 33641 as *Pteropus caniceps* Gray, 1870.

It is likely that the skulls RMNH.MAM.33641 and 33642 and skins RMNH.MAM.33638 and 33639 respectively belong together; this can however not be proven.

Forsten collected in Ternate between 19 June and mid-September 1841, during which period he also obtained material from Halmahera (Veth 1879: 107; Van Steenis-Kruseman 1950: 179).

Pteropus hypomelanus simalurus Thomas, 1923

Pteropus hypomelanus simalurus Thomas, 1923b: 592.

Paratype, RMNH.MAM.30592, adult male, alcohol and skull. Loc.: Kokos island [Pulau Salaut Besar], Indonesia. Leg.: E. Jacobson, April 1913.
Paratypes: RMNH.MAM.30545–30556.

The holotype is in the NHM (NHMUK 23.10.7.5).

Pteropus keyensis Peters, 1867

Pteropus melanopogon var B. keyensis "Schlegel" Peters, 1867: 330.

Paralectotype, RMNH.MAM.37890 (Jentink 1887: 257 *d*; 1888: 143 *d*), male, mounted skin and skull. Loc.: Great Key [Kai Besar], Kai Islands, Indonesia. Leg.: C.B.H. von Rosenberg, 2 August 1865.
Paralectotypes: RMNH.MAM.27734, 37891–37897.

Peters (1867) did not specify the specimens available to him. The specification of the bats sent on loan to Peters in October 1866 mentioned the several skins of "Pteropus aruensis, var: Key Schl.", all collected by von Rosenberg: two from "Groot Key", seven from "Klein Key" and two from "Koor" [Kur], as well as one alcohol specimen of "Pteropus argentatus Klein Key 17 August 1865" (field numbers specified). Therefore, all these specimens belong in the type series, including the animals from Khoor (Kur) and the alcohol specimen not listed as types by Jentink (1887; 1888). By referring to the Berlin specimen (ZMB 4752) as the type, Andersen (1912: 247) designated this the lectotype of *P. keyensis* Peters, 1867. This must be one of the two skins from Great Key sent to Peters by Naturalis.

Kur is not specifically mentioned by Peters and the specimens from this Island (RMNH.MAM.37898–37901) are not catalogued by Jentink (1887; 1888) as types. Therefore we do not include these in the type series of *P. keyensis*.

Pteropus macrotis macrotis Peters, 1867

Pteropus macrotis Peters, 1867: 327.
Pteropus insignis von Rosenberg, 1867: 31.

> Holotype by monotypy, RMNH.MAM.36735 (Jentink 1887: 254 *a*; 1888: 141 *a*), adult female, mounted skin and skull. Loc.: Wokam, Aru Islands, Indonesia. Leg.: C.B.H. von Rosenberg, 7 April 1865 (22).

Peters (1867: 329) referred to this specimen as coming from Buru. However, it is the animal recorded by Von Rosenberg (1867: 31) as No. 22 from the Aru Islands and described by him as *Pteropus insignis*. This corresponds with the entry in Von Rosenberg's field notes (Naturalis inv. 255. 485–486). It was included in a loan of bats sent to Peters in October 1866, as one of seven skins of "Pteropus aruensis, Schl. Aroe v. Rosenberg." (field numbers specified). Its provenance was correctly given by Jentink (1887; 1888) and Andersen (1912: 396). Most likely, “Buru” is a lapsus by Peters for Aru.

The treatise by Peters on *Pteropus* containing his description of *P. macrotis* was read at a meeting of the Royal Academy of Sciences in Berlin on 27 May 1867, and must have been published shortly afterwards (Troschel 1868: 15). Jentink (1887; 1888) gives 1868 as its publication date, but this refers to the sequel to that article, read at the meeting of 19 December 1867 (Peters 1868).

Von Rosenberg's account on the southeastern islands of Indonesia, containing a preliminary description of *Pteropus insignis* based on his field number 22 (see above), was also published in 1867 (Troschel 1868: 16). The statement by Andersen (1912: 397) that Von Rosenberg's book "was apparently published late in 1867 or early in 1868" can not be substantiated. Although the priority of *Pteropus macrotis* Peters over *Pteropus insignis* von Rosenberg cannot be proven, it seems best to assume that the account by Peters was indeed published shortly after May 1867, as more issues of the Monatsberichte were to follow in that year (Troschel 1868: 16). As long as the exact publication date of Von Rosenberg's travel account cannot be established, a fictitious date of 31 December 1867 has to be assumed.

Pteropus mariannus mariannus Desmarest, 1822

pteropus [sic] mariannus Desmarest, 1822: 547.
Pteropus Keraudren Quoy and Gaimard, 1824: 51, pl. 3.
Pteropus keraudrenius Temminck, 1825b: 186, pl. 15 fig. 7. (incorrect subsequent spelling)

> Syntype, RMNH.MAM.37816 (Jentink 1888: 149 *c*), male, mounted skin, skull in situ. Loc.: Guam, Mariana Islands. Leg.: Freycinet Expedition [J.R.C. Quoy and J.P. Gaimard, 17 March–5 June 1819].
> Syntype, RMNH.MAM.37817 (Jentink 1887: 262 *b*, 1888: 149 *d*), subadult, sex unknown, mounted skin and incomplete skull. Loc.: Guam. Leg.: Freycinet Expedition [J.R.C. Quoy and J.P. Gaimard, 17 March–5 June 1819].

In a footnote on the last page of his book, Desmarest (1822) provided a brief description of this species, discovered by Quoy and Gaimard, the naturalists who took part in De Freycinet's expedition around the world. Quoy and Gaimard (1824), apparently overlooked the brief diagnosis by Desmarest (1822: 547) and described this species from Guam as *Pteropus Keraudren*, a name amended by Temminck (1825b) into *Pteropus keraudrenius*.

There is however some confusion on the number of types. According to Quoy and Gaimard (1824: 51, 53) they collected four animals during their stay on Guam between 17 March and 5 June 1819 (De Freycinet 1829: 73; 1839: 517). Temminck (1825b: 187) claimed to have received two of these, and mentioned another three in the MNHN, in total five types. The online database of the MNHN lists at the moment a holotype (MNHN-MO-1987-298) and three paratypes (MNHN-MO-1987, MNHN-AC-A1250, MNHN-AC-A6769), making the total number of types six. Besides this uncertainty of the number of types, the listing of the specimens in the MNHN as holo- and paratypes is clearly an error, as none of the authors formally designated a (holo)type and the type series consists of at least four specimens.

Jentink (1888: 149) erroneously also listed RMNH.MAM.37815 as one of these types. He strangely overlooked the old labels glued onto the wings of the animals in this series. These identify RMNH.MAM.37816 and 37817 as De Freycinet's specimen, RMNH.MAM.37815 as collected in Guam by F.J. von Kittlitz. This is also correctly mentioned by Temminck (1837: 77). Andersen (1912: 180), apparently assuming that Jentink had mixed up skins *b* and *c* (though there cannot be the slightest misunderstanding about the sex of these particular specimens), simply "corrected" the labels accordingly, to make them agree with Jentink's printed catalogue.

Pteropus medius medius Temminck, 1825

Pteropus medius Temminck, 1825b: 176.

> Syntype, RMNH.MAM.37905 (Jentink 1888: 146 *c*), female, mounted skin, skull in situ. Loc.: Calcutta, India. Leg.: J.-J. Dussumier.
> Syntype, RMNH.MAM.37906 (Jentink 1888: 146 *d*), subadult female, mounted skin, skull in situ. Loc.: Calcutta. Leg.: J.-J. Dussumier.

Although Jentink (1888) attributed these specimens to Leschenault and Dussumier, the labels give only Dussumier as collector. Apparently, Jentink had misinterpreted Temminck (1825b: 177), who merely stated that individuals of the species are reported by Leschenault and by Dussumier from Calcutta and Pondicherry. They both collected for MNHN, but there is no record that they undertook a joint expedition. Temminck described the species from material in Paris, Leiden and London and said that the material in Naturalis and the MNHN was collected by these travellers.

Dussumier made several journeys to South and East Asia between 1816 and 1840 (Bauchot et al. 1990: 79, 103). Probably, Dussumier obtained the skins now in

Naturalis during his third voyage, when he was at the Ganges (Cuvier 1830: 459); no date of this could be found. Temminck did not mention whether he received the material directly from Dussumier or through the MNHN.

Giannini et al. (2020: 112) followed Mlíkovský (2012), who demonstrated that *Pteropus giganteus* (Brünnich, 1782) is a junior synonym of *Pteropus vampyrus* Linnaeus, 1758) and that *Pteropus medius* Temminck, 1825 is the first available valid name for this taxon.

Pteropus medius leucocephalus Hodgson, 1835

Pteropus leucocephalus Hodgson, 1835: 700.

> Syntype, RMNH.MAM.37912 (Jentink 1888: 146 *e*), male, mounted skin, skull in situ. Loc.: Nepal. Leg.: B.H. Hodgson.

Hodgson (1835) described this species from the central region of Nepal (p. 699), without specifying how many animals he had before him, but giving only one set of measurements. Gray (1843: 36) mentioned only one specimen of *P. leucocephalus* from Hodgson in the NHM; however in Gray (1846a: 3) additional material is listed and he stated that duplicates were sent to Leiden. Temminck (1837) did not include this form in his Monographie de mammalogie; he probably had not received this specimen when his manuscript went to press.

Although Gray's type series (Gray 1843) probably is too broad. Dobson (1878: 51) speaks of "one of the types" and Andersen (1912: 335) regards all of Hodgson's material in the NHM (except skull b, perhaps omitted by mistake) as syntypes of *Pteropus leucocephalus* Hodgson, 1835. Judging by their catalogue numbers, all of these were accessioned in 1845. Since Hodgson collected in Nepal between 1823 and 1844 (Mearns and Mearns 1988: 193–195), it is not certain whether all the alleged types, including the Naturalis specimen, had already been collected when Hodgson wrote his description.

Andersen (1912: 334) gave as type locality "Nepal (Katmandu) Valley"; see also Hodgson (1842b: 221).

Pteropus melanopogon Peters, 1867

Pteropus melanopogon "Schlegel" Peters, 1867: 330.

> Paralectotype, RMNH.MAM.37875 (Jentink 1888: 142 *l*), male, mounted skin, skull in situ. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September] 1828. Paralectotypes: RMNH.MAM.37870–37873, 37885, 37886.

Peters (1867) partly clarified the confusion created by Temminck regarding the type locality of *Pteropus phaiops* Temminck (1825b: 178)(see under *Pteropus phaiops*). Peters (1867) renamed the material from the Moluccas "*Pteropus melanopogon* Schlegel". Thereby officially publishing a manuscript name used by Müller and later

by Schlegel. Peters had received one of those (collected by Müller) from Naturalis. Andersen (1912: 241) referred to this specimen in the MfN (ZMB 2627) as the type, thereby designating it the lectotype.

Müller and Macklot visited Ambon between 29 March and 20 April 1828 (Müller 1841: 94, 115) and again in September of that year (Müller 1840b: 10). The provenance of RMNH.MAM.37886, dated April 1820, is somewhat enigmatic. It either had been overlooked by Temminck (and in that case, formally would not be a type), or the year 1820 is a lapsus for 1828, in which case it must have been one of the specimens collected by Müller and Macklot. Forsten visited Ambon, Seram and Saparua in 1842 (Van Steenis-Kruseman 1950: 179).

Pteropus molossinus Temminck, 1853

Pteropus molossinus Temminck, 1853: 62.

> Holotype by monotypy, RMNH.MAM.21684 (Jentink 1887: 253 *a*; 1888: 139 *a*), adult male, mounted skin and skull.

The provenance of the type is not documented. The species only occurs in Micronesia.

Pteropus personatus Temminck, 1825

Pteropus personatus Temminck, 1825b: 189.

> Possible syntype, RMNH.MAM.37854 (Jentink 1887: 253 *a*), subadult, sex unknown, skeleton. Loc.: Ternate.

Temminck (1825b: 189–190) described this species from two specimens collected by Reinwardt in Ternate. None of these can be identified with certainty. Reinwardt visited Ternate during 15–27 August and 1–4 September 1821 (Reinwardt 1858: 476, 496, 502–503).

Jentink (1887: 253; 1888: 140) tried to reconstruct which specimens could be from Reinwardt. He listed two specimens as types, but the labels do not support this and, moreover, are confusing. The first is RMNH.MAM.37846 (Jentink 1887: 253 *d*; 1888: 140 *a*). It has a label pasted onto its wing in Schlegel's handwriting, reading "Pteropus personatus. Tem. Mon. Forsten. Ternate". The pedestal confirms this, but a later label mentions Bernstein as the collector. The label with the skull of RMNH.MAM.37846 (written in Jentink's days) does not give the collector, and even more strangely, in his 1887 catalogue Jentink attributed it to Forsten, but in 1888 to Reinwardt, without stating the reason. Judging by Schlegel's label, there is little doubt that the animal was indeed collected by E.A. Forsten, who visited Ternate in 1841

(Veth 1879: 107). Therefore, this specimen is not a type. Andersen (1912: 324) has overlooked this evidence and followed Jentink's designation.

The second alleged type is RMNH.MAM.37849 (Jentink 1887: 254 g; 1888: 140 d). Its provenance is given as Ceram, the collector as Forsten, but there is no old label pasted onto the wing. Forsten's name, however, has been crossed out on both the pedestal and the label, probably by Jentink. The label with the skull (written in Jentink's days) gives Reinwardt as the collector and so it appears in Jentink's 1887 and 1888 catalogues. However, Reinwardt never visited Ceram (Van Steenis-Kruseman 1950: 430), but Forsten collected in Ceram in 1842 (Veth 1879: 107). In view of this, Andersen (1912: 324) too, rejected it as a type. Since, however, *P. personatus* is not known to occur in Ceram (Flannery 1995), the locality is almost certainly erroneous. It seems most likely that this specimen too, was brought from Ternate by Forsten, who perhaps assumed that it had come from Ceram: Ternate was an important trading post for goods coming from and going to the Moluccas. Alternatively, it is just possible that the specimen was indeed collected by Reinwardt in Ternate, but this cannot be substantiated, despite Jentink's inference.

Finally, RMNH.MAM.37854 seems the oldest specimen of this species present and may be from Reinwardt's collections. Jentink (1887) did not list it as a type, but Andersen (1912: 324) suggested this possibility, though its label does not give the collector and Temminck (1825b: 189) did not refer to skeletal material.

Turni and Kock (2008: 18) listed a syntype (ZMB 2635) in the MfN, collected by Reinwardt in 1821 on Ternate, so presumably the second specimen used by Temminck.

***Pteropus poliocephalus* Temminck, 1825**

Pteropus poliocephalus Temminck, 1825b: 179.

Temminck (1825b: 180) mentioned two specimens in Naturalis, both from Australia. One of these he acquired in London and must be his "individu monté". About the second specimen Temminck remarked that it had been completely destroyed by beetles.

Neither Jentink (1888: 139), Andersen (1912: 400, 402) or we have been able to identify the mounted skin from Australia with any of the specimens in Naturalis.

Pteropus pselaphon Lay, 1829

Pteropus ursinus "Kittlitz" Temminck, 1837: 70 (footnote).

> Syntype, RMNH.MAM.37844 (Jentink 1887: 253 a; 1888: 139 a), adult female, mounted skin and skull. Loc.: Bonin, Japan. Leg.: Senjawin Expedition, F.H. von Kittlitz [1–15 May 1828]. Ex: SMF (P.J. Cretzschmar).

Temminck (1837) published this manuscript name by Kittlitz as a junior synonym of *Pteropus pselaphon*. However it has been used as a valid name by subsequent authors (see Gray 1870: 110). Temminck mentioned three specimens in his description, RMNH.MAM.37844 in Naturalis and a specimen collected by Kittlitz in the ZIN RAS. The third specimen, acquired by Temminck just before 1837, is no longer present in the Naturalis collection.

Pteropus rufus É. Geoffroy Saint-Hilaire, 1803

Pteropus phaiops Temminck, 1825b: 178.

> Syntype, RMNH.MAM.37220 (Jentink 1888: 146 *c*), adult male, mounted skin and skull. Loc.: [Madagascar].
> Syntype, RMNH.MAM.37221 (Jentink 1887: 259 *c*; 1888: 146 *d*), female, mounted skin and skull. Loc.: Madagascar.

In the original description Temminck (1825b: 178) gave the type locality correctly as Madagascar. Later however, Temminck (1837: 66) assumed that the type specimens did not originate from Madagascar, but from Macassar, Sulawesi and he included in *Pteropus phaiops* new material which he had received from Ambon (see also under *P. melanopogon*).

Temminck (1825b) described this species from two specimens. Jentink (1888) and Andersen (1912: 207) referred to the specimens above as types. The pedestal of skin *c* (RMNH.MAM.37220) reads "?Madagascar" (in Jentink's handwriting), which reflects the doubt about the provenance of the specimens that Temminck (1837: 66) later expressed. Jentink (1887: 255 *i*, *j*; 1888: 142 *g–j*) also included the material collected by E.A. Forsten in Ambon, Seram and Saparua in the type series. This is incorrect, not only because of the provenance, but also since Forsten visited these islands in 1842 (Veth 1879: 107), long after Temminck's monograph was published.

Pteropus temminckii Peters, 1867

Pteropus Temminckii “Müller” Peters, 1867: 331.

> Syntype, RMNH.MAM.21690 (Jentink 1888: 140 *a*), female, mounted skin and skull. Loc.: Samao [Semau] near Timor, Indonesia. Leg.: S. Müller [and H.C. Macklot], April 1829. (= *P. griseus*).

Syntype, RMNH.MAM.21691 (Jentink 1888: 140 *b*), adult female, mounted skin and skull. Loc.: Semau, Indonesia. Leg.: S. Müller [and H.C. Macklot], April 1829. (= *P. griseus*).
Syntype, RMNH.MAM.36740 (Jentink 1887: 254 *d*; 1888: 141 *h*), female, mounted skin and skull. Loc.: Ambon, Indonesia. Leg.: S. Müller [and H.C. Macklot], September 1828.
Syntype, RMNH.MAM.36742 (Jentink 1887: 254 *a*), sex unknown, skeleton. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, February 1829. (= *P. griseus*).
Syntype, RMNH.MAM.36743 (Jentink 1887: 254 *b*), sex unknown, skeleton. Loc.: Timor [= Ambon?], Indonesia. Leg.: S. Müller and H.C. Macklot, October [= September?] 1828.

Peters (1867) based his description on the publication of *Pteropus griseus* by Temminck (1837) and on specimens sent to him from Leiden. He did not specify the specimens he studied, but gave as type locality Semau and Ambon. Among the specimens are at least the three specimens from Ambon, the "cotypes" mentioned by Andersen (1912: 318) (ZMB 2633, 3473, 4964) collected by S. Müller, C.B.H. von Rosenberg and H.A. Bernstein, respectively, and donated by Naturalis to the MfN (see Turni and Kock 2008: 19).

The type series for *P. temminckii* consists of the 13 specimens from Semau available to Temminck, the depicted specimens on pl. 35 fig. 6 (RMNH.MAM.36740) and pl. 36 figs 12, 13 (RMNH.MAM.36742) and the three specimens in the collection of MfN. Temminck (1837) listed in his description six specimens on alcohol, five skins and two skeletons, all collected by Müller and Macklot on Semau. However, in the Naturalis collection some are labelled as originating from Timor. In addition, Temminck (1837: 81) referred to the depiction of the head of a specimen (RMNH.MAM.36740) on pl. 35 fig. 6. This animal is from Ambon as is noted on the original drawing by P. van Oort ("Amboina April 1828 Pteropus Temminckii Müll: n. sp:", with the specific name replaced, in Temminck's handwriting, into "griseus Jeune").

Jentink (1887: 254) catalogued as types for "*P. griseus* Temminck" two skeletons (RMNH.MAM.36742, 36743) from Müller and Macklot and erroneously two skulls (RMNH.MAM.36739, 36795 by other collectors). Although some of the Semau material might have been labelled as from Timor, we exclude these specimens (RMNH.MAM.21724, 21725) from the type series. We also exclude the specimen depicted on pl. 35 fig. 14, 15 (RMNH.MAM.36795).

RMNH.MAM.36743 (Jentink 1887: cat *b*), labelled as from Semau, is not conspecific with the remaining series; it is smaller and agrees with the form occurring in the Moluccas (*P. temminckii*). It was collected by Müller and Macklot, who visited Ambon in April 1828 (Müller 1841: 94, 115; see also the drawing cited above) and again in September of that year (Müller 1840b: 10), prior to their arrival on Timor in October (Müller 1842: 132). Very likely, this specimen became mixed up with their material from Timor and Semau.

Pt[eropus] petersi Matschie, 1899: 31, Taf. 6 Fig. 4.

Syntype, RMNH.MAM.36795 (Jentink 1887: 254 *f*), sex unknown, skull. Loc.: Ambon, Indonesia. Figured in Temminck (1837: pl. XXXVI figs 14, 15).

Matschie (1899) studied the three Ambon type specimens of *P. temminckii* in the MfN (ZMB 2633, 3473, 4964). Referring to Temminck (1837: pls 35, 36), he recognized that the material which Temminck regarded as *P. griseus* is composite and noted that the skull figured in pl. 36 figs 14–15 (RMNH.MAM.36795) agrees with the specimens from Ambon. He is not certain about the identity of the head figured in pl. 35 (RMNH.MAM.36740), as he was unaware that it also represented an animal from Ambon. Despite the provenance of the material in Berlin, Matschie restricted the name *Pteropus temminckii* Peters, 1867 to the animals from Semau and Timor. The skull depicted on Fig.4 of pl. 6 is from Ambon, however still bears the caption "*Pt. Temminckii*". Probably, this plate had already been printed before the text was written. Matschie (1899) renamed the Ambon form *Pteropus petersi*, based on the specimen depicted in Temminck 1837 (pl. 36 fig. 14–15) and the three "cotypes" of *P. temminckii* in Berlin.

Pteropus tonganus geddiei MacGillivray, 1860

Pteropus Geddiei MacGillivray, 1860: 7134.

> Paralectotype, RMNH.MAM.21689 (Jentink 1888: 149 *a*), adult male, mounted skin and skull. Loc.: Aneityum [Anatom], New Hebrides [Vanuatu]. Leg.: J. MacGillivray, 23 June 1859. Ex: G.A. Frank, 1861.

In his description MacGillivray (1860: 7135) did not specify how many specimens he had before him. Although he gave the measurements of apparently only one skin, from his account it is clear that he collected several males.

Andersen (1912: 189–190) listed a specimen in the NHM as the type (*a*, possibly NHMUK 1860.11.13.2, but type status in online database not indicated), thereby designating it the lectotype of *Pteropus geddiei* MacGillivray, 1860.

Pteropus ualanus Peters, 1883

Pteropus ualensis Finsch, 1881: 107 (nomen nudum).
Pteropus ualanus Peters, 1883: 1.

> Syntype, RMNH.MAM.21688 (Jentink 1887: 262 d; 1888: 149 e), adult female, mounted skin and skull. Loc.: ["Lyäl"], Ualan [Kosrae], Caroline Islands, Micronesia. Leg.: F.H. von Kittlitz, [15 December 1827]. Ex: ZIN RAS.
> Syntype, RMNH.MAM.37814 (Jentink 1888: 149 a), adult female, mounted skin, skull extracted but not in collection. Loc.: Ualan [Kosrae], Caroline Islands, Micronesia. Leg.: O. Finsch [20–29 February 1880]. Ex: G. Schneider, 1888.

Peters (1883) described this species from material collected by O. Finsch on Kosrae and from the description by Finsch (1881) and Temminck (1837: 78) of a specimen collected by von Kittlitz on Ualan (Kosrae). The latter is therefore also one of the syntypes of *Pteropus ualanus* Peters, 1883, a fact not recognized by Jentink (1887; 1888) or Andersen (1912). Von Kittlitz (1858: 24) described the discovery of this bat

near the village “Lyäl” on the western side of the island on 15 December 1827. He identified it with the “Roussette Keraudren” from Guam figured by De Freycinet (1824: pl. 3).

Finsch (1881) introduced the name *Pteropus ualensis* for this bat, but he only writes that he at first sight mistook the flying animal for an owl, so this is a nomen nudum. Finsch visited the island between 20 and 29 February 1880 (Finsch 1881: 102, 110). Peters (1883) did not specify the number of specimens he had available, but Andersen (1912: 178) mentioned a series of ten types in the MfN. Finsch (1899: 15) stated that he deposited all his collections obtained on this expedition in the MfN, “mit Ausschluss der Doubletten”. The animal in Naturalis, correctly labelled “*Pteropus ualanus* Peters” in Finsch’s handwriting, was acquired in 1888 from the dealer G. Schneider in Basel. Therefore, it must be one of the duplicates retained by Finsch.

Turni and Kock (2008: 20) listed several syntypes collected by Finsch in the MfN (ZMB 5788, 5788a–d, 5792a–b, 5789, 5791,5798, 5808, 5809).

Pteropus vampyrus (Linnaeus, 1758)

Pteropus funereus Temminck, 1837: 63, pl. XXXV fig. 4.

Syntype, RMNH.MAM.37918 (Jentink 1888: 145 *j*), adult male, mounted skin, skull in situ. Loc.: Borneo, Indonesia.
Syntype, RMNH.MAM.37919 (Jentink 1888: 145 *k*), male, mounted skin, skull in situ. Loc.: Borneo, Indonesia.
Syntype, RMNH.MAM.37923 (Jentink 1887: 259 *p*; 1888: 145 *g*), female, mounted skin and incomplete skull. Loc.: Timor, Indonesia.
Syntype, RMNH.MAM.37924 (Jentink 1888: 145 *h*), subadult female, mounted skin and incomplete skull. Loc.: Timor, Indonesia. Leg.: S. Müller, August 1829.
Syntype, RMNH.MAM.37932 (Jentink 1887: 258 *c*; 1888: 145 *o*), male, mounted skin and skull. Loc.: Sumatra, Indonesia. Skull figured in Temminck (1825b: pl. 15 figs 1–3, as *Pteropus edulis*).
Syntype, RMNH.MAM.37974 (Jentink 1888: 145 *q*), male, mounted skin, skull extracted but not in collection. Loc.: Sumatra, Indonesia.
Syntype, RMNH.MAM.37975 (Jentink 1888: 145 *r*), male, mounted skin, skull extracted but not in collection. Loc.: Sumatra, Indonesia.
Syntype, RMNH.MAM.37976 (Jentink 1888: 145 *s*), male, mounted skin, skull in situ. Loc.: Sumatra, Indonesia.
Syntype, RMNH.MAM.37977 (Jentink 1888: 145 *t*), juvenile male, mounted skin, skull in situ. Sumatra, Indonesia.

Temminck (1837) described part of the material that he had earlier identified with *Pteropus edulis* Geoffroy, 1810, as *Pteropus funereus*, based on twelve specimens from Timor, Amboine, Borneo et Sumatra. Temminck’s pl. 35 fig. 4 represents a specimen from Timor, according to the caption on a sketch preserved in the archives of Naturalis.

Jentink (1887, 1888) did not list any specimens as types, but in his 1888 catalogue specified the nine skins listed above as "*Pteropus funereus* Temminck",

implying that these are the types. Andersen (1912: 357) pointed out that there are no specimens from Ambon among these and restricted the type locality to Timor. He regarded Jentink's skins *g* and *h* (RMNH.MAM.37923, 37924) as the "cotypes" of this form; he did not designate a lectotype.

Jentink (1888) also included in this series skins *i* (RMNH.MAM.37917) and *m* (RMNH.MAM.37921), collected by S. Müller in Borneo in 1836. Müller travelled in South Borneo between the end of July and mid-December 1836 (Müller 1847: 324) and returned to the Netherlands in August 1837 (Van Steenis-Kruseman 1950: 298). Assuming that most of his Borneo collections arrived here at about the same time, these specimens can hardly have been seen by Temminck before his 1837 monograph was published.

Another syntype (ZMB 2629) is in the MfN (Turni and Kock 2008: 16).

Pteropus vampyrus sumatrensis **Ludeking, 1862**

Pteropus malaccensis Andersen, 1908a: 368.

> Paratype, RMNH.MAM.37973 (Jentink 1887: 259 *j*; 1888: 145 *p*), male, mounted skin and skull. Loc.: Banka, Indonesia. Leg.: J.H.G. Vosmaer. Received 22 January 1874.

Andersen (1908a) studied nineteen specimens, the holotype is in the NHM (NHMUK 6.10.4.7). Next to the above listed paratype, Andersen referred to three specimens from Sumatra in Naturalis which cannot be identified with certainty. See under *Pteropus funereus* (= *Pteropus vampyrus*) in this catalogue for possible candidates.

In our opinion the name *Pteropus vampyrus sumatrensis* Lüdeking, 1862 is a nomen nudum, as Lüdeking (1862: 48) gave no discerning characters only described behavior and that they appear in the evening in large numbers (ICZN art. 13.1.1).

Pteropus vampyrus natunae **Andersen, 1908**

Pteropus natunæ Andersen, 1908a: 369.

Andersen studied twelve specimens for his description from Pulau Panjang, Natuna, Sarawak and Bunguran. The holotype is in the NHM (NHMUK 1895.11.8.1). According to Andersen some of the studied material is in Naturalis. These specimens cannot be identified with certainty. There is one specimen from Pulau Panjang (RMNH.MAM.37997), identified as *Pteropus chrysoproctus*, and two specimens from Borneo (RMNH.MAM.37918 and 37919), lacking any details. See under *Pteropus funereus* (= *Pteropus vampyrus*) for possible candidates.

Pteropus vampyrus pluton **Temminck, 1853**

Pteropus pluton Temminck, 1853: 56.

> Syntype, RMNH.MAM.37913 (Jentink 1887: 259 *s*; 1888: 145 *x*), female, mounted skin and skull. Loc.: Bali or Lombok, Indonesia.

Syntype, RMNH.MAM.37914 (Jentink 1888: 145 *y*), male, mounted skin and skull. Loc.: Bali or Lombok.
Syntype, RMNH.MAM.37915 (Jentink 1888: 145 *z*), female, mounted skin and skull. Loc.: Lombok.

Kuroda (1933b: 339) restricted the type locality to Bali, but did not designate a lectotype.

Rousettus aegyptiacus leachii (A. Smith, 1829)

Pteropus hottentottus Temminck in Smuts, 1832: 3.

Syntype, RMNH.MAM.38124 (Jentink 1887: 263 *c*; 1888: 151 *d*), subadult female, mounted skin and incomplete skull. Loc.: [Steenbergen], Cape, South Africa. Leg.: H.B. van Horstok, [6 September 1830].
Syntype, RMNH.MAM.38125 (Jentink 1888: 151 *e*), adult female, mounted skin, skull in situ. Loc.: [Steenbergen], Cape, South Africa. Leg.: H.B. van Horstok, [6 September 1830].
Syntype, RMNH.MAM.38126 (Jentink 1888: 151 *f*), juvenile female, mounted skin, skull extracted but not in collection. Loc.: [Steenbergen], Cape, South Africa. Leg.: H.B. van Horstok, [6 September 1830].
Syntype, RMNH.MAM.38127 (Jentink 1887: 263 *a*), sex unknown, skeleton. Loc.: Cape, South Africa. Leg.: H.B. van Horstok, [1829–1830].
Syntype, RMNH.MAM.38128 (Jentink 1887: 263 *b*), sex unknown, skull. Loc.: Cape, South Africa. Leg.: H.B. van Horstok, [1829–1830].

Although Jentink (1887; 1888) only listed RMNH.MAM.38124 as one of the types of *Pteropus hottentottus* Temminck, Temminck (in Smuts 1832: 5; Temminck 1837: 88) stated that there were several skins and skeletons in Naturalis. Jentink (1888: 151) did not record the collector of RMNH.MAM.38124, though the label and pedestal of the mounted skin give van Horstok.

In the inventory for the shipment of 1829 Van Horstok lists one large bat, a male, dated 2 August 1829, no locality given. This specimen cannot be traced any longer, but the skeletal material is not sexed, so it could be one of these. In an undated list, probably before 1830, four large bats are mentioned, collected on 6 September in Steenbergen, the coastal hills east of Cape Town around False Bay. In this inventory, a great variety of animals from various localities is specified for 6 September, which probably is the date when Van Horstok obtained them from one or more local collectors. This collection must have been available to Temminck for his description of *P. hottentottus*, which was published on 23 June 1832. Therefore, all specimens received from Van Horstok are regarded here as syntypes.

Pteropus geoffroyi Temminck, 1825b: 197 (nomen novum).

This name was introduced by Temminck (1825b: 197) as a nomen novum for *Pteropus aegyptiacus* É. Geoffroy Saint-Hilaire, 1810. The type series for the latter species in the MNHN therefore also applies to *Pteropus geoffroyi*, and not the specimens in

Naturalis (RMNH.MAM.27270–27273) listed by Jentink (1887: 263; 1888: 151) as types.

Rousettus obliviosus Kock, 1978

Rousettus obliviosus Kock, 1978a: 208, figs 1–2.

> Paratype, ZMA.MAM.20903, immature female, alcohol and skull. Loc.: Anjouan Island (12°15'S, 44°25'E), Comoros. Leg.: A. Voeltzkow (94), 11 October 1903. Ex: MfN (58196), December 1979.

The holotype is in the MfN (ZMB 58207; Turni and Kock 2008: 21).

Scotonycteris zenkeri Matschie, 1894

Ep.[omophorus] zenkeri Matschie, 1894: 202.

Matschie created some confusion around this name. The original description was published in 1894, but later Matschie (1899: 46) again described this species under the same name as a new species. We see no reason why the first publication is not valid and 1894 is followed by most recent publications (Wilson and Reeder 2005: 349; Giannini et al. 2020: 92).

Andersen (1912: 524), confused by Matschie, designated a specimen in the MfN the lectotype. However this specimen is not part of the original type series (a single female specimen from Yaunde, collected by Zenker). Turni and Kock (2008: 10) followed the mistake by Andersen and listed the lectotype designated by Andersen (ZMB 9974, 9975), they did not mention the correct holotype. If Andersen was correct and this species should be dated from Matschie 1899, Naturalis holds a paralectotype (RMNH.MAM.27276, Jentink 1887: 251 b; 1888: 137: b).

The Naturalis collection holds two specimens collected by Bohndorf in Niam-Niam in March 1883; RMNH.MAM.21263, originally identified as *E. comptus (= E. franqueti*) by Jentink (1887: 252; 1888: 137) and RMNH.MAM.27276, listed by Jentink (1887: 251; 1888: 137) as *E. gambianus* (later identified as *Epomophorus wahlbergi haldemani*). There must also have been a mix up with either the date or locality as Bohndorff left the Niam-Niam territory in 1882 and stayed from November 1882 until Mai 1883 near Deim Zubeir (Uyujuku, South Sudan) (see Hassenstein 1885).

Syconycteris carolinae Rozendaal, 1984

Syconycteris carolinae Rozendaal, 1984: 200.

Holotype, RMNH.MAM.32246, adult male, skin in alcohol and skull. Loc.: Southern base of Mt Gamkunoro at c. 180 m, Halmahera, Indonesia. Leg.: F.G. Rozendaal, 16 March 1983.

Rhinolophidae Gray, 1825

Rhinolophus affinis affinis Horsfield, 1823

Rhinolophus affinis affinis Horsfield, 1823: (6) nr 1, (7) pl. [63] figs A, B.

Paralectotype, RMNH.MAM.35236 (Jentink 1887: 270 *b*), sex unknown, skull. Loc.: Java, Indonesia. Leg.: T. Horsfield, [1802–1819] (= *Hipposideros larvatus*).
Paralectotype: RMNH.MAM.35237 (= *Hipposideros larvatus*).

Horsfield (1823) did not specify the material available to him. The Naturalis skulls are labelled *Rhinolophus affinis*, but the original labels are lost. Temminck (1835a: 32) saw this species in London in 1828 in the collection of Horsfield, implying there was more than one specimen (Temminck 1834: 12; 1835a: 8). Although Temminck did not state that he received material from Horsfield, Jentink (1887) regarded the Naturalis skulls as types. Andersen (1905: 104) listed a specimen in the NHM as type (NHMUK 79.11.21.70). Csorba et al. (2003) designated this specimen the lectotype and identified the Naturalis skulls with *Hipposideros larvatus* (Horsfield, 1823), described in the same section in Horsfield (1823: nr 4, pl. [48]).

Horsfield collected in Java during the period 1802–1819 (Van Steenis-Kruseman 1950: 243–244).

Rhinolophus alcyone Temminck, 1853: 80.

Rhinolophus alcyone Temminck, 1853: 80.

Holotype by monotypy, RMNH.MAM.35892 (Jentink 1887: 271 *a*; 1888: 164 *a*), female, mounted skin and skull. Loc.: Butri River, Ghana. Leg.: H.S. Pel, [1841–1850].

Although the pedestal of this specimen only bears the inscription “Côte d’Or”, Temminck (1853: 81) specified the provenance as “La rivière Boutry à la Guiné”. The greater part of Pel’s collections was indeed obtained at Butri, situated on the mouth of the tidal river of that name southwest of Elmina.

Rhinolophus arcuatus angustifolius Sanborn, 1939

Rhinolophus arcuatus angustifolius Sanborn, 1939: 43.

Holotype, RMNH.MAM.21722, male, skin in alcohol and skull. Loc.: Wetar, Indonesia. Leg.: K.S. Schädler, [February–March 1897]. Received 7 June 1898.

Schädler (misnamed “Dr. Schardler” by Sanborn) collected in Wetar between 2 February and 14 March 1897 (Fransen et al. 1997: 291). The date of 7 June 1898 given by Sanborn is the day on which the material was received by Naturalis.

Rhinolophus borneensis importunus Chasen, 1939

Rhinolophus importunus Chasen, 1939: 188.

> Holotype, RMNH.MAM.15320, female, skin and skull. Loc.: Tjiawitali [Ciawitali] near Wijnkoopsbaai [Palabuhanratu Bay] at 200–300 m, Java, Indonesia. Leg.: M. Bartels Jr, 23 May 1935 (1574).

Rhinolophus clivosus Cretzschmar, 1828.

Rhinolophus clivosus Cretzschmar, 1828: 47.

Cretzschmar (1828: 47–48) described this species from material collected near Mohila (Al Muwaylih), Saudi Arabia, which Rüppell visited early July 1825 (Mertens 1949: 46). He did not specify the number of specimens he had before him, but gave the measurements of one animal only. Mertens (1925: 20) designated a specimen in the SMF (nr 4371) from Mohila as the lectotype.

Temminck (1835a: 33) obviously did not realise that the type locality is not situated in Egypt but in Arabia, since he stated that Cretzschmar’s plate 18 depicts a specimen from Egypt and that Rüppell collected the species during his Egyptian travels, and finally that Naturalis possessed specimens from Egypt and South-Africa. It cannot be ascertained whether a skeleton in Naturalis (RMNH.MAM.35904 from Egypt collected by Rüppell) is really one of the types or was collected during Rüppell’s second expedition, which passed through Egypt during the first half of 1831 (Mertens 1949: 54–57). Jentink (1888: 164) did not list as types the two skins said to have been collected by Rüppell in Egypt and dated August 1859, which cannot be correct if Rüppell was indeed the collector. These skins were misidentified and are *Rhinolophus hipposideros* (Bechstein, 1800). Jentink erroneously stated that the head of one of these has been figured as *Rhinolophus clivosus* in Temminck (1835a: pl. XXIX fig. 7). One *Rhinolophus clivosus* is mentioned in a list specifying material received in exchange from the SMF in 1828 (Naturalis archives inv. 241.880). This could only have been one of the type series and probably the specimen figured in Temminck’s monograph, but it is no longer present in Naturalis.

Rhinolophus cornutus cornutus Temminck, 1834

Rhinolophus cornutus Temminck, 1834: 30.

> Lectotype, RMNH.MAM.35188 (Jentink 1888: 162 *f*), male, mounted skin and skull. Loc.: [Nagasaki, Kyūshū], Japan. Leg.: H. Bürger, [1831–1832].
> Paralectotype: RMNH.MAM.35187.

Temminck's description from 1834 preceded his more extensive monograph (Temminck 1835a). In 1834 he wrote that this new species was based on two specimens received from Burger; later Temminck (1835a: 37) identified these specimens as males. The skins cannot be sexed any longer. In neither publication the presence of a separate skull is mentioned; no skull is figured, nor is there an explicit description of skull characters. However, in 1835 Temminck gave some dental details that would have been visible only in a cleaned skull. In view of this, Jentink (1887: 270) included a separate skull (*a*, RMNH.MAM.35191), also collected by Bürger, in the type series; this is followed by Csorba et al. (2003: 102). Since, however, Temminck's 1834 description is explicitly based on two specimens only, with the skulls in situ at the time (that of RMNH.MAM.35188 was extracted after Jentink's days) and is not accompanied by a figure of the skull, RMNH.MAM.35191 is not regarded here as a type (but see the discussion under *Rhinolophus euryotis*). It must have been taken from a skin that has not been preserved, see under *Rhinolophus ferrumequinum*. The lectotype has been designated by Csorba et al. (2003).

Bürger's shipping inventory for 1830 (Naturalis archives inv. 232.1438–1440) did not include *Rhinilophus*, but in those for 1831 and 1832, he specified 12 and 16 skins, respectively. The shipment sent in November 1834 contained another three, but these arrived in Leiden in 1835, so were not available to Temminck.

Turni and Kock (2008: 32) listed a paralectotype in the MfN (ZMB 3281), which is probably incorrect.

Rhinolophus euryale Blasius, 1853

Rhinolophus euryale Blasius, 1853: 49.

> Syntype, RMNH.MAM.54737 (Jentink 1892: 163 *m*), male, alcohol, skull in situ. Loc.: Triest, Italy. Leg.: J.H. Blasius. Received 1859.

Rhinolophus euryotis euryotis Temminck, 1834

Rhinolophus euryotis Temminck, 1834: 24.

> Syntype, RMNH.MAM.35195 (Jentink 1888: 160 *a*), male, mounted skin and skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
> Syntype, RMNH.MAM.35196 (Jentink 1888: 160 *b*), female, mounted skin, skull in situ. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].

Syntype, RMNH.MAM.35197 (Jentink 1888: 160 *c*), female, mounted skin, skull in situ. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35198 (Jentink 1887: 269 *a*), sex unknown, skeleton. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35199 (Jentink 1887: 269 *b*), sex unknown, skeleton. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35200 (Jentink 1887: 269 *c*), sex unknown, skeleton. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35201 (Jentink 1887: 269 *d*), sex unknown, skeleton. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35203 (Jentink 1887: 269 *f*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35204 (Jentink 1887: 269 *g*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35205 (Jentink 1887: 269 *h*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35206 (Jentink 1887: 269 *i*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35207 (Jentink 1887: 269 *j*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35208 (Jentink 1887: 269 *k*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35209 (Jentink 1887: 269 *l*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.35210 (Jentink 1887: 269 *m*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].

The short introduction of this new species by Temminck (1834) preceded his more extensive description (Temminck, 1835a). In 1834 Temminck did not specify the number of specimens examined, writing that many specimens of this new species were discovered by Macklot and Muller during their stay in the Moluccas. In 1835 he specified (p. 27) two females and three males. In neither publication did Temminck mention the presence of skeletal material. In 1834, no description of skull or teeth was given, but in 1835 Temminck described (p. 26) some dental characters that can only be seen in cleaned skulls, and a skull of the species is figured in detail in pl. XXXII figs 13–15. The skull of RMNH.MAM.35197 may have been extracted in Temminck's days from a skin in the type series, but skin and skull cannot be matched any longer. All specimens collected by Müller and Macklot must have been available to Temminck at the time of his first description. Therefore, following Jentink (1887; 1888), the skeletal material is included in the type series, in contrast with the skull of *Rhinolophus cornutus* discussed above.

Turni and Kock (2008: 31) listed three syntypes in the MfN (ZMB 381, 382, 2573); however they erroneously dated this name from Temminck's second publication (Temminck 1835a) and gave no indication that the material was collected by Müller and Macklot.

Müller and Macklot were in Ambon between 29 March and 20 April 1828 (Müller 1841: 94, 115) and again in September of that year (Müller 1840b: 10).

Rhinolophus keyensis simplex K. Andersen, 1905

Rhinolophus keyensis annectens Sanborn, 1939: 37.

Holotype, RMNH.MAM.21721 (formerly 1372), male, alcohol and skull. Loc.: Wetar, Indonesia. Leg.: K.S. Schädler, [February–March 1897]. Received 7 June 1898.

See for further details under *Rhinolophus arcuatus*.

Rhinolophus luctus luctus Temminck, 1834

Rhinolophus luctus Temminck, 1834: 23, pl. I fig. 5.

Holotype by monotypy, RMNH.MAM.35175 (Jentink 1888: 160 *b*), female, mounted skin and skull. Loc.: Tapos [Tapus] at the foot of Mt Pangrango, Java, Indonesia. Leg.: H. Boie, [4 July–23 August] 1827.

Temminck (1834) introduced this new species, later (Temminck 1835a) followed by a more extensive description. In 1834 (pp. 23–24) he attributed the discovery of this species to Boie. Apparently, Boie had collected only one female (Temminck (1835a: 26).

After the text of his 1835 monograph had gone into print, Temminck received two more specimens, on which he reported on two inserted pages (Temminck, 1835a: 30c–d), RMNH.MAM.35174 and RMNH.MAM.35176. Jentink (1887: 269; 1888: 160) erroneously listed RMNH.MAM.35174 as part of the typeseries.

Boie stayed at Tapus between 4 July and 23 August 1827 (Boie 1833: 495; Susanna 1834: 51, 282; Veth 1879: 52).

Rhinolophus nippon nippon (Temminck, 1835)

Rhinolophus nippon Temminck, 1835a: 30a.

Syntype, RMNH.MAM.35166 (Jentink 1888: 164 *o*), male, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1831–1834].
Syntype, RMNH.MAM.35167 (Jentink 1888: 164 *p*), male, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1831–1834].
Syntype, RMNH.MAM.35168 (Jentink 1888: 164 *q*), female, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1831–1834].
Syntype, RMNH.MAM.35169 (Jentink 1888: 164 *r*), sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1831–1834].
Syntype, RMNH.MAM.35170 (Jentink 1888: 164 *s*), sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: P.F.B. von Sieboldt [H. Bürger], [1831–1834].
Syntype, RMNH.MAM.35171 (Jentink 1887: 270 *c*), sex unknown, skull. Loc.: Japan. Leg.: H. Bürger, [1831–1834].
Syntype, RMNH.MAM.35172 (Jentink 1887: 270 *d*), sex unknown, skull. Loc.: Japan. Leg.: H. Bürger, [1831–1834].
Syntype, RMNH.MAM.35173 (Jentink 1887: 270 *e*), sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1831–1834].

Bürger's shipping inventory for 1830 (Naturalis archives inv. 232.1438–1440) did not include *Rhinolophus*, in those for 1831 and 1832 he specified 12 and 16 skins respectively, and another three for 1834. The consignment sent in November 1834 arrived in Leiden in 1835, the same year when Temminck's monograph (Temminck 1835a) was published. Temminck's description of *Rh. nippon* appears on pp. 30a–30b, pages obviously inserted after the rest of the work had already gone into print. The details in Temminck (1835: 30a) and Temminck (1842: 14) agree with a manuscript in the archives of Naturalis containing an abridged version of Von Siebold's notes on the mammals of Japan, attributing the discovery of this species to Bürger. From this, it is clear that all specimens were obtained by Bürger. Only Jentink's skin *s* (RMNH.MAM.35170) is labelled "v. Siebold", probably the reason why Jentink excluded this from the type series; we follow this. This specimen might be wrongly labelled, or arrived earlier and was later identified as this species.

Rhinolophus pusillus pusillus Temminck, 1834

Rhinolophus pusillus Temminck, 1834: 29, pl. I fig. 9.

> Lectotype, RMNH.MAM.35180 (Jentink 1888: 163 *d*), juvenile, sex unknown, relaxed mount, skull in situ. Loc.: [West] Java, Indonesia. Leg.: H. Boie and S. Müller, [1826–1827]. Probably figured in Temminck (1834: pl. I fig. 9; 1835a: pl. XXIX fig. 8).
> Paralectotypes: RMNH.MAM.35177, 35178; RMNH.MAM.59663 (formerly associated with skull RMNH.MAM.35177), 35179, 35181(= *Rhinolophus hipposideros*).

The type series is composite and presents an unsolvable puzzle. Temminck (1834) shortly introduced this new species, later followed by a more extensive description (Temminck 1835a). Temminck did not specify how many specimens he had before him, but there must have been more than one, as in 1834 (p. 30) he describes the colour of both sexes. Following Dobson (1878: 117), Jentink (1887; 1888) included the species in *Rhinolophus hipposideros* Bechstein and gave the type series of *Rh. pusillus* as three skins (skulls in situ), one skin with skull extracted and one separate skull. Three of the skins are given as adults (*a*–*c*: RMNH.MAM.35177–35179), the fourth one (*d*: RMNH.MAM.35180) as juvenile. Skin *a* (RMNH.MAM.35177) is associated with skull *b*, skull *a* (RMNH.MAM.35181) is separate. Jentink (1888) states that skin *a* (RMNH.MAM.35177) is figured in Temminck's (1835a) pl. XXIX fig. 8, but this is erroneous, as the head does not bear the slightest similarity to the plate. If the specimen depicted is still present in Naturalis, it can only be skin *d* (RMNH.MAM.35180), the connecting process of which perfectly matches pl. XXIX fig. 8; the rest of the head is too shrivelled to allow a useful comparison. The head of the same specimen had already been figured by Temminck in 1834 (pl. I fig. 9), but the lateral view showing the connective process was added in 1835.

Dobson (1878: 117) regarded "the types" as "undoubtedly" *Rhinolophus hipposideros*, without recognizing the composite nature of the material. Andersen (1905: 126) identified Temminck's figures with his *lepidus* group. He found Dobson's

conclusion “rather astounding”, as he considered the occurrence of *Rhinolophus hipposideros* in Java (type locality mentioned by Temminck) impossible. He therefore assumed that, if Dobson is correct, the labels must have been mixed up. He tentatively synonymized *Rhinolophus pusillus* with *Rhinolophus minor* Horsfield, 1823. Andersen did not study the complete type series, but “one old skin only ("the type") and a fragment of the skull, representing the nasal swellings and the teeth”. This statement is somewhat enigmatic. By “the type” Andersen can only have ment Jentink’s small, “juvenile” skin *d* (RMNH.MAM.35180) which, as we have seen, resembles Temminck’s figure in some respects. The skull of this, however, has not been extracted, so he cannot have studied it from this specimen. Since the two separate skulls in the type series are undamaged, Andersen must have seen “a fragment” of another skull, probably in the NHM.

To Csorba et al. (2003: 111) the type series “caused a lot of mental labour”. They agreed with Dobson (1878) in identifying RMNH.MAM.35178–35179 and RMNH.MAM.35181 with *Rhinolophus hipposideros*. According to them, RMNH.MAM.35177 (skin with skull extracted) consists of a skin of *Rh. hipposideros* and a skull of *Rh. pusillus*; RMNH.MAM.35180 (Jentink’s “juvenile” skin, skull in situ) is *Rhinolophus pusillus*. Arguing that “the skull characteristics are widely used features”, they select the skull of RMNH.MAM.35177 as the lectotype and RMNH.MAM.35180 the paralectotype of *Rhinolophus pusillus*, thereby excluding the remaining material from the type series, among which the skin of RMNH.MAM.35177, in the assumption they are mislabeled. However, their lectotype designation is predated by Andersen (1905: 126), who by referring to the “old” skin he studied as “the type”, has implicitly designated this the lectotype, though unfortunately without further specification. Since this can only be RMNH.MAM.35180, we regard that as the lectotype of *Rhinolophus pusillus* Temminck, 1834.

Both Andersen (1905) and Csorba *et al.* (2003) stated that the occurrence of *Rhinolophus hipposideros* in Java must be rejected and that the Leiden specimens identified with this species have become mixed up and mislabeled. Boie and Müller collected, in part jointly, in various places in West Java from June 1826 until Boie’s death on 4 September 1827 (Boie 1832, 1833; Susanna 1834; Veth 1879: 46, 52).

Rhinolophus rouxii rouxii Temminck, 1835

Rhinolophus rouxii Temminck, 1835a: 30b.

> Lectotype, RMNH.MAM.35221 (Jentink 1888: 161 *i*), male, mounted skin and incomplete skull. Loc.: Calcutta, India. leg.: J.L.F.P. Roux, [1832–1833].
> Paralectotypes: RMNH.MAM.35222–35225.

Temminck (1835a) inserted the pages 30a–d including the description of *Rhinolophus rouxii* at the last moment, after his monograph had gone into print. He wrote (p. 30b) having received a large number of specimens from India without further locality and several specimens from Roux. Of this material, only the five specimens collected by

Roux are still present in Naturalis. Temminck bought these in Paris after Roux's death. Roux collected in India during 1832–1833. He died in 1833, but there is no agreement on the time and place of his death. A label in the Crustacea department in Naturalis reads "Chandernagor Roux". At that time Chandernagore was a French possession north of Calcutta (see Fransen et al. 1997: 230, 286–287).

The lectotype was designated by Csorba et al. (2003: 117).

Rhinolophus tatar Bergmans & Rozendaal, 1982

Rhinolophus tatar Bergmans & Rozendaal, 1982: 170, figs 1–5.

Holotype, ZMA.MAM.21838, female, alcohol and skull. Loc.: Moinakom River at 0°41'N, 124°3'E, Cagar Alam Dumoga, Sulawesi, Indonesia, alt. 525 m. Leg.: K.D. Bishop, F.G. Rozendaal, W.F. Rodenburg, 27–28 October 1981.

Paratypes: ZMA.MAM.21839–21844.

Rhinolophus trifoliatus trifoliatus Temminck, 1834

Rhinolophus trifoliatus Temminck, 1834: 24, pl. I fig. 6.

Syntype, RMNH.MAM.35194 (Jentink 1888: 160 *b*), sex unknown, subadult mounted skin and skull. Loc.: [Ciomas], Bantam, Java, Indonesia. Leg.: J.C. van Hasselt, [March 1823].

Temminck (1834) shortly introduced this new species, followed by a more extensive description (Temminck 1835a). In both papers Temminck explicitly stated that he had received two specimens. Only one of these is still present in Naturalis. Although its label gives Kuhl and Van Hasselt as the collectors, Temminck (1835a: 28) attributed this specimen to Van Hasselt. The animals therefore must have been collected after Kuhl's death on 14 September 1821 (Veth 1879: 26). In a letter dated 1 April 1823 (Naturalis archive, no inventory number) Van Hasselt gives the following details: "Rhinolophus. flavomaculatus. Mihi. Rara species. Tab nostra. Inveniebatur prope villam Tjomas ad pedem montis Karang / ad arbores. Ins: Java." A further note by him (copied in another hand) says: "*Rhinolophus flavo dimaculatus* Hasselt. Tab nostra. Tjomas Maart, hing aan een waringi boom,…" [Tjomas March, hung on a waringi tree,…]. To this is added in pencil "trifoliatus Temm". Van Hasselt collected in this area in March 1823, see his published letter of 14 March 1823 (Van Hasselt 1823; Van Steenis-Kruseman 1950: 220).

Turni and Kock (2008: 34) listed a specimen in the MfN (ZMB 3280) as syntype.

Hipposideridae Miller, 1907

Aselliscus tricuspidatus tricuspidatus (Temminck, 1834)

Rhinolophus tricuspidatus Temminck, 1834: 20, pl. I fig. 4.

Syntype, RMNH.MAM.35310 (Jentink 1887: 271 *a*; 1888: 165 *a*), adult female, relaxed mount and skull. Loc.: Amboine [Ambon], Indonesia. Leg.: S. Müller and H.C. Macklot [29 March–20 April 1828].

Temminck (1834) based his description on two specimens of which only one is still present in Naturalis.

Coelops frithii bernsteinii Peters, 1862

Coelops bernsteinii Peters, 1862a: 117.

Holotype by monotypy, RMNH.MAM.35317 (formerly 28135) (Jentink 1888: 169 *a*), adult male, alcohol and skull. Loc.: Gadok, Java, Indonesia. Leg.: H.A. Bernstein [29 September 1855–31 October 1860].

Bernstein was from 29 September 1855 until 31 October 1860 director of the hospital at Gadok.

Doryrhina cyclops (Temminck, 1853)

Phyllorhina cyclops Temminck, 1853: 75.

Syntype RMNH.MAM.35973 (Jentink 1887: 271 *a*; 1888: 166 *a*), adult male, mounted skin and skull. Loc.: Rio Boutry, Cote d'Or [Ghana]. Leg.: H.S. Pel.
Syntype RMNH.MAM.35974. (Jentink 1887: 271 *b*; 1888: 166 *b*), adult female, mounted skin and skull. Loc.: Rio Boutry, Cote d'Or [Ghana]. Leg.: H.S. Pel.

Doryrhina muscinus (Thomas & Doria, 1886)

Phyllorhina muscina Thomas & Doria, 1886: 201.

Syntype, RMNH.MAM.37350 (Jentink 1888: 168 *a*), adult female, alcohol and skull. Loc.: Fly-River, Papua New Guinea. Leg.: L.M. d'Albertis [1875–1877]. Ex: Museum Genova, 1888.

Hipposideros armiger armiger (Hodgson, 1835)

Phyllorhina swinhoii Peters in Swinhoe, 1870: 616 (incorrect original spelling).
Phyllorhina Swinhoei Peters, 1871: 317.

Paralectotype, RMNH.MAM.35658 (Jentink 1888: 166 *a*), sex unknown, mounted skin, skull in situ. Loc.: Amoy [Xiamen], China. Leg.: R. Swinhoe, [summer] 1867. Ex: Frank, 1880.
Paralectotype: RMNH.MAM.35659.

Swinhoe (1870: 616) sent his specimens to Peters for identification. Most specimens were returned to Swinhoe (Pohle 1943), therefore all Swinhoe's specimens should be regarded as types. Jentink (1888: 166) listed RMNH.MAM.35658 and 35659 as types. Turni and Kock (2008: 39) list a holotype (ZMB 3996) and paratypes (ZMB 3946, 3947, 3995, 3997) in the MfN, which should be lectotype, designated by Pohle (1943: 323) and paralectotypes.

Hipposideros ater amboinensis Peters, 1871

Ph[yllorhina] amboinensis Peters, 1871: 323.

Syntype, RMNH.MAM.33655 (Jentink 1888: 168 *Ph. bicolor f*), male, mounted skin, skull in situ. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.33656 (Jentink 1888: 168 *Ph. bicolor g*), adult male, mounted skin, skull in situ. Loc.: Ambon, Indonesia. Leg.: S. Müller and H.C. Macklot, [April or September 1828].
Syntype, RMNH.MAM.33657 (Jentink 1887: 272 *Ph. bicolor a*), sex unknown, skull. Loc.: Ambon, Indonesia. Leg.: [S. Müller and H.C. Macklot, April or September 1828].
Syntype, RMNH.MAM.33658 (Jentink 1887: 273 *Ph. bicolor b*), sex unknown, damaged skull. Loc.: Ambon, Indonesia]. Leg.: [S. Müller and H.C. Macklot, April or September 1828].

These specimens also form part of the type series of *Rhinolophus bicolor* Temminck, 1834, see below. Temminck (1835a: 19) already noted the smaller size of the specimens from Ambon. Peters (1871: 324) described in detail one specimen in the MfN, received from Temminck as *Phyllorhina bicolor*. Turni and Kock (2008: 35) listed this specimen (ZMB 369) as the holotype, however Peters studied the Naturalis specimens too, as he also refered to his "Untersuchung der Hufeisennasen des Leidener Museums…". This, and his reference to the Ambon material included in *Rh. bicolor* by Temminck (1835a), means that all Temminck's specimens are to be regarded as syntypes of *Phyllorhina amboinensis* Peters, 1871 (see also Tate 1941a: 361). According to Peters (1871) the Berlin specimen is a dry specimen, while the specimen listed by Turni and Kock (2008) is preserved in alcohol.

Müller and Macklot visited Ambon between 29 March and 20 April 1828 (Müller 1841: 94, 115) and again in September of that year (Müller 1840b: 10).

Hipposideros bicolor bicolor (Temminck, 1834)

Rhinolophus bicolor Temminck, 1834: 19, pl. I fig. 3.

Lectotype, RMNH.MAM.33654 (Jentink 1888: 168 *d*), female, mounted skin and incomplete skull. Loc.: [Anyar], Java, Indonesia. Leg.: J.C. van Hasselt, [March/April 1823].
Paralectotypes: RMNH.MAM.33652–33653 (= *H. ater saevus*), 33655–33658 (= *H. amboinensis ater*).

Temminck (1834) shortly introduced this new species, followed by an extensive description later (Temminck 1835a). In 1834 Temminck wrote having received a large number of specimens, later (Temminck 1835a: 19) this is specified as ten females and

four males from Java, Ambon and Timor. Of this type series, only five skins and two separate skulls are still present in Naturalis, but none of them from Timor.

Tate (1941a: 361) showed that the type series is composite, a conclusion followed by Hill (1963: 31) and Bergmans and Van Bree (1986: 338). Tate designated RMNH.MAM.33654 as the lectotype. Hill (1963: 27, 31, 33) attributed the remaining animals from Java and those from Ambon (syntypes of *Phyllorhina amboinensis* Peters, 1871) to *Hipposideros ater* Templeton, 1848.

According to its label (not original), the lectotype was collected in Java by Kuhl and Van Hasselt. However, Temminck (1835a) stated that Van Hasselt found the species in a bamboo hut at Anyar, where Van Hasselt collected in March and early April 1823, long after Kuhl's death in 1821, see Van Hasselt's letter of 14 March 1823 (Van Hasselt 1823) and the details given under *Taphozous melanopogon* and *Saccolaimus saccolaimus*. Therefore, one may infer that the lectotype is indeed from Anyar, as has been assumed by Tate (1941a).

Turni and Kock (2008: 36) listed a paralectotype (ZMB 2570) in the MfN.

Hipposideros javanicus Sody, 1937: 215.

Holotype, RMNH.MAM.32178, adult male, skin and skull. Loc.: Babakan (50 m), Kroja District, Java, Indonesia. Leg.: H.J.V. Sody, 5 April 1929 (3).
Paratypes: RMNH.MAM.32164, 32167, 32694, 32712–32716.

Sody (1937) examined ten specimens for his description; nine of these are in Naturalis. In his publication he mixed up some of the collecting localities.

Hipposideros caffer (Sundevall, 1846)

Rhinolophus caffer Sundevall, 1847a: 118.

Syntype, RMNH.MAM.27330 (Jentink 1888: 167 *i*), adult, mounted skin, skull in situ. Loc.: Cafrerie, Port Natal, South Africa. Leg.: J.A. Wahlberg. Ex: NRM.

Hipposideros cervinus cervinus (Gould, 1854)

Hipposideros celebensis Sody, 1936: 47.

Holotype, RMNH.MAM.29293, adult female, skin and skull. Loc.: Mampoe Cave, 20 km. north of Watoe Pone, South Sulawesi, Indonesia. Leg.: C.J.H. Fransen, [1932]. Ex: H.J.V. Sody (Mampoe 4).
Paratypes: RMNH.MAM.29294–29303.

According to Sody he examined around 20 specimens. According to Becking 1989: 48) Franssen collected these specimens probably in 1932.

Hipposideros fuliginosus (Temminck, 1853)

Phyllorhina fuliginosa Temminck, 1853: 77.

Holotype by monotypy, RMNH.MAM.35972 (Jentink 1887: 272 *a*; 1888: 167 *a*), female, mounted skin and skull. Loc.: [Elmina], Ghana. Leg.: H.S. Pel, [1841].

The skull of this specimen bears the label “Ashantes” (in Jentink’s handwriting), which is also given in Jentink’s catalogues. This locality corresponds to the coastal area between Butri River and Elmina (Holthuis 1968: 19). Almost certainly, this bat is the one included in the specification of Pel’s first shipment from September 1841 (perhaps sent in January 1842; see Holthuis 1968: 13), and specified as a large reddish brown *vespertilio* from Elmina.

Hipposideros gigas (Wagner, 1845)

Phyllorhina vittata "Temminck" Jentink, 1888: 165 (in synonymy).

Jentink (1888: 165) listed RMNH.MAM.35910–35911 (cat. *a*–*b*, collected in Ghana by H.S. Pel) as types of *Phyllorhina vittata* Temminck in the synonymy of *Hipposideros commersoni* (É. Geoffroy Saint-Hilaire, 1813), later identified as *H. gigas*. We have found no valid publication by Temminck of this name and no subsequent use attributing this name to Temminck, so this name is not available. These specimens can not be types for *P. vittata* Peters, 1852 as they do not originate from Mozambique.

Hipposideros larvatus (Horsfield, 1823)

Hipposideros larvatus neglectus Sody, 1936: 46.

Syntype, RMNH.MAM.35627, adult male, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 13 January 1894.
Syntype, RMNH.MAM.35628, adult male, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 13 January 1894 (56).
Syntype, RMNH.MAM.35629, adult male, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 13 January 1894.
Syntype, RMNH.MAM.35630, adult male, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 13 January 1894.
Syntype, RMNH.MAM.35631, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35632, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35633, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35634, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35635, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.

Syntype, RMNH.MAM.35636, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35637, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35638, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 21 January 1894.
Syntype, RMNH.MAM.35639, adult female, alcohol, skull in situ. Loc.: G. Kenepai, Borneo, Indonesia. Leg.: Central Borneo Expedition, J. Büttikofer, 25 January 1894.

Sody (1936) based his description on the specimens described in Jentink (1897: 52).

Hipposideros sumbae sumbae Oei, 1960

Hipposideros larvatus sumbae Oei, 1960: 28.

Paralectotype, ZMA.MAM.1536, female, alcohol, skull in situ. Loc.: Karoeni (9°26'S, 119°19'E), West Sumba, Indonesia. Leg.: L.P. Krijger, August/September, 1932.

Van Bree (1961: 122) designated the lectotype (NMB 5651, 10157) in the NMB, which also holds two paratypes (NMB 5649, 5650 2M). See Bergmans (2011: 844) for details.

Megadermatidae H. Allen, 1864

Megaderma spasma pangandarana Sody, 1936

Megaderma spasma pangandarana Sody, 1936: 46.

Holotype, RMNH.MAM.33019, male, skin and skull. Loc.: Pangandaran, Java, Indonesia. Leg.: H.J.V. Sody, 23 September 1932 (Pang 9).
Paratypes: RMNH.MAM.33004, 33018, 33020–33023.

Becking (1989: 48) stated that the holotype was collected by the brothers M. Bartels Jr and E. Bartels. However, Sody (1936) wrote: “I collected 8 animals in caves at Pangandaran”. According to Becking (1989: 80), the Bartels brothers visited this locality 17–18 June 1932 and sent their material to Sody for identification, which does not agree with the dates of 23–24 September given on the labels of the specimens for that year. Later (p. 85) Becking wrote that Sody visited the place 17–20 June 1933, together with M. Bartels Jr. He now associated the holotype with this trip, in contradiction with his statement on p. 48. As this discrepancy cannot be solved, the data on the labels are assumed to be correct.

Emballonuridae Gervais, 1855

Coleura afra (Peters, 1852)

Emballonura afra Peters, 1852b: 51, Taf. XII, XIII figs 18, 19.

Syntype, RMNH.MAM.27333 (Jentink 1888: 196 *a*), sex unknown, mounted skin, skull in situ. Loc.: Tete, Mozambique. Leg.: W.C.H. Peters, [1843–1847].

Peters arrived in Mozambique in 1843 and returned to Germany in 1848 (Peters 1852b: viii–ix).

Turni and Kock (2008: 23) listed syntypes in the MfN (ZMB 571, 54845, 67559–67562, 85667–85669, 429, 430) and a syntype in the NHM (NHMUK 1907.1.1.703).

Emballonura monticola Temminck, 1838

Emballonura monticola Temminck, 1838a: 25, pl. II figs 1, 2.

Lectotype, RMNH.MAM.35332 (Jentink 1888: 195 *a*), sex unknown, mounted skin and fragments of skull. Loc.: Mt Munara near Rumpin, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [May–July 1821]. Figured in Temminck (1838a: pl. II figs 1, 2).
Paralectotypes: RMNH.MAM.35333 and 35824.

Temminck (1838a: 27) mentioned the presence of a small number of specimens in Naturalis. Tate and Archbold (1939: 13) designated RMNH.MAM.35332 the lectotype. Apparently, Tate (1940: 7) later ignored this and listed the specimens as “co-types”.

The date of Kuhl and Van Hasselt’s visit to Mt Munara is not documented, but from a published letter of 10 August 1821 (Kuhl and Van Hasselt 1822b: 151) and from Van Steenis-Kruseman (1950: 220, 303) it appears that this was during the period May–July 1821.

Saccolaimus peli (Temminck, 1853)

Taphozous peli Temminck, 1853: 82.

Syntype, RMNH.MAM.35897 (Jentink 1888: 199 *a*), adult male, mounted skin and skull. Loc.: Butri River, Ghana. Leg.: H.S. Pel, [1843–1844].

Temminck (1853: 83) recorded that the specimen was collected “sur la rivière de Boutry”, whereas the label, of later date, reads “Elmina”. Although the Dutch headquarters were at Elmina, Pel acquired the greater part of his collections in the surroundings of Butri, situated southwest of Elmina at the mouth of the tidal river of that name (see Holthuis 1968: 9), so probably this is the correct locality. Pel worked here intermittently during the period 11 March 1841–November 1850 (Holthuis 1968: 10–11, 22). In the specification of Pel’s third shipment, sent to Leiden in October 1844, there is an entry “*Vespertilio* ? Boutry”, which possibly refers to this specimen. This

shipment contained the material collected between March 1843 and October 1844 (Holthuis 1968: 13); between March 1842 and 15 January 1844 Pel spent most of his time at Butri (Holthuis 1968: 10–11, 22).

Temminck (1853) gave no indication of the number of specimens available to him.

Saccolaimus saccolaimus saccolaimus (Temminck, 1838)

Taphozous Saccolaimus Temminck, 1838a: 14, pl. 1 figs 8–12.

> Lectotype, RMNH.MAM.33630 (Jentink 1888: 198 *a*), female, mounted skin, skull in situ. Loc.: [Buitenzorg (Bogor)], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [11 April 1821] Paralectotypes: RMNH.MAM.33631, 33632, 33634, 33635, 33636, 33637 and 33633 (= *Taphozous longimanus kampenii*).

Temminck's (1838a: 17) description is based on a series of specimens of all ages and from different areas. Of this series, five skins and three separate skulls are still in Naturalis. Their labels (not original) all read "Java" without further details but stating Kuhl and Van Hasselt as the collectors, except for skin RMNH.MAM.33634, which Jentink (1888: 198) included in the type series. The skulls RMNH.MAM.35635–35636 are recognizable on the plate in Temminck (1838a: pl. 1 figs 10–11); fig. 12 cannot with certainty be connected with any of the skulls. These figures are copied in reverse in Temminck 1841a: pl. LX figs 2–6, with fig. 1 added.

Tate (1940: 8) recognised that the type series consists of two species, a larger and a smaller one. Later Tate (1941b: 1) identified the larger form as the true *Taphozous saccolaimus* and the smaller (RMNH.MAM.33633, 33634) as *T. longimanus kampenii*. He designated RMNH.MAM.33630 the lectotype. However, RMNH.MAM.33634 looks in every respect like a juvenile *S. saccolaimus* (det. Smeenk), leaving only RMNH.MAM.33633 as aberrant.

The provenance of the type series is not well documented. In a catalogue of mammals collected in Java Van Hasselt wrote in 1822 about "*Saccolaimus Vociferus* Nob.": "Batavia. Buitenzorg Ins Java" (Naturalis archives inv. 265.18). This is followed by an observation on a difference in coloration between animals caught in April and March, respectively, which agrees with an entry in Kuhl's field notes, preserved in the archives of Naturalis (copied in an unknown hand) One of the specimens with a white-spotted back is RMNH.MAM.33630, the other is no longer present. The specimen with two white spots is RMNH.MAM.33631. The note on the variability of the white spots was copied by Temminck (1838a: 15; 1841a: 286), though in the latter publication with an unexplained modification. Kuhl's anatomical observations on the species are dated "merz 1821". Therefore, at least part of the material was collected at Bogor in March and April 1821.

The locality Anjer (Anyar) appears in a field note, written by Van Hasselt in Dutch (copied in the same hand). Van Hasselt was in the surroundings of Anyar in March 1823, see a published letter of 14 March of that year (Van Hasselt 1823) and

apparently also in April. In this note, he distinguished three varieties of this genus, two of which were found at Anyar. The first-mentioned was brown with a strongly developed gular sac and throat gland; of this, he collected two specimens. The second was dark grey without white spots, with only a faint trace of a gular sac and with no throat gland; of this, he found a large quantity. The third clearly applied to the males of *Taphozous melanopogon*, described by Temminck in 1841 (see above); of this, he collected two specimens on Sangiang Island. Temminck obviously mixed up the material obtained in various places in Java and on Sangiang Island, collected by Kuhl and Van Hasselt or by Van Hasselt alone after Kuhl's death. It is now impossible to trace the exact provenance of the type series, with the exception of the two spotted skins RMNH.MAM.33630 and 36631. But in any case, it seems clear that *S. saccolaimus* was not collected on Sangiang Island, where Van Hasselt found *T. melanopogon* only; see the remarks under that species.

According to Turni and Kock (2008: 25) the MfN holds two paralectotypes (ZMB 2554, 435).

Saccolaimus saccolaimus affinis Dobson, 1875

Saccolaimus flavimaculatus Sody, 1931: 355.

Holotype, RMNH.MAM.32637, adult female, skin and skull. Loc.: [Samarinda], Kutai District, Borneo, Indonesia. Leg.: H. Witkamp, 1930. Ex: H.J.V. Sody (10).

Sody (1931) pointed out that Witkamp had forgotten to label the specimen; there was however no doubt it was collected in Kutai District. Since all other material of this collector is from Samarinda, Sody has inferred this locality.

Saccopteryx bilineata (Temminck, 1838)

Urocryptus bilineatus Temminck, 1838a: 33, pl. II figs 3, 4.

Syntype, RMNH.MAM.17461 (Jentink 1888: 197 *a*), male, relaxed mount and fragments of skull. Loc.: [Paramaribo], Suriname. Leg.: H. Dieperink, [1825–1832].

Temminck (1838a) gave no indication of the number of specimens available to him. For the locality and collecting period, see *Rhynchonycteris naso*.

Taphozous longimanus kampenii Jentink, 1907

Taphozous Kampenii Jentink, 1907: 66.

Holotype, RMNH.MAM.35825, male, skin in alcohol and skull. Loc.: Batavia [Jakarta], Java, Indonesia. Leg.: P.N. van Kampen, December 1906.

Taphozous mauritianus É. Geoffroy Saint-Hilaire, 1818

Taphozous leucopterus Temminck, 1838a: 12, pl. I fig. 8.

Syntype, RMNH.MAM.35896 (Jentink 1887: 286 *a*; 1888: 198 *a*), subadult, sex unknown, mounted skin and skull. Loc.: Cafrérie [South Africa]. Leg.: H.B. van Horstok, [1828–1832].

In Van Horstok's shipments to Leiden unspecified bats are included for the years 1828–1832 (Naturalis archives inv. 209.756). The present specimen is labelled "Kafferland" or "Cafrérie", which formerly was the northern part of the East Cape, between the Great Kei River and Natal. However, the name may have been used here as a general indication for the interior of the former Cape.

Taphozous dobsoni Jentink, 1879b: 123.

Holotype by monotypy, RMNH.MAM.30344 (Jentink 1888: 198 *a*), adult male, skin in alcohol and skull. Loc.: Mahambo, Madagascar. Leg.: J. Audebert, 1876.

In 1876 Audebert collected in northeastern Madagascar (Jost 2012). The present specimen was most likely included in his shipment sent to Leiden in September 1876.

Taphozous melanopogon melanopogon Temminck, 1841

Taphozous melanopogon Temminck, 1841a: 287, pl. LX figs 8, 9.

Syntype, RMNH.MAM.35318 (Jentink 1887: 286 *a*; 1888: 197 *a*), female, mounted skin and skull. Loc.: [Anjer (Anyar)], Java, Indonesia. Leg.: J.C. van Hasselt, [April 1823]. Figured in Temminck (1841a: pl. LX fig. 9).
Syntype, RMNH.MAM.35319 (Jentink 1887: 286 *b*; 1888: 197 *b*), male, mounted skin and skull. Loc.: [Dwars in den Weg (Sangiang Island)], Indonesia. Leg.: J.C. van Hasselt, [April 1823]. Figured in Temminck (1841a: pl. LX fig. 8).
Syntype, RMNH.MAM.35320 (Jentink 1887: 286 *c*; 1888: 197 *c*), female, mounted skin and skull. Loc.: [Anyar], Java, Indonesia. Leg.: J.C. van Hasselt, [April 1823].

The type material of *Taphozous melanopogon* Temminck, 1841 and *Taphozous saccolaimus* Temminck, 1838 is badly documented and Temminck's notes on the two species appear confused.

Temminck (1841a: 288–289) wrote having received some specimens from Bantam and Sangiang Island. The labels of the three specimens in Naturalis (not original) read only "Java" and do not bear the collector's name. Jentink (1887; 1888) attributed these to Kuhl and Van Hasselt, which appears only partly correct. Kuhl and Van Hasselt collected in West Java from January 1821 onwards in the surroundings of Buitenzorg (Bogor) and in Bantam District. Kuhl died on 14 September 1821, Van Hasselt on 8 September 1823 (Veth 1879: 26, 35).

Van Hasselt and Van Raalten undertook an expedition to Bantam District from August 1822 to August 1823. In the archives of Naturalis there is a field note by Van Hasselt (copied in an unknown hand) saying "*Saccolaimus* Anjer April". In this, Van

Hasselt distinguished three varieties of this genus. The third of these had no gular sac and no throat gland, but a black, bristly throat patch, thereby agreeing in every respect with the male of the present species. Of this, Van Hasselt found two specimens in the cliffs on Sangiang Island. RMNH.MAM.35319 must be one of those two males; the other one is no longer present in Naturalis. Most likely, the two females in the type series are of the second variety distinguished by Van Hasselt of dark grey bats without white spots, with only a faint trace of a gular sac and with no throat gland. These he found at Anjer (Anyar) in a large quantity. Van Hasselt was in the surroundings of Anyar in March 1823, see a published letter of 14 March of that year (Van Hasselt 1823), and April, in which month he must have made a trip to Sangiang Island.

All this material must have been available to Temminck at the time when he wrote his first article on Emballonuridae (Temminck 1838a). However, here he only described *Taphozous saccolaimus*, including Anjer and Sangiang Island among the localities where that species was collected and mentioning its presence in swiftlet caves. It cannot be excluded that at the time he regarded any females of the present species as juvenile *T. saccolaimus*, but he does not mention or figure animals with a black throat patch. Later (Temminck 1841: 285–287), he repeated his earlier account on *T. saccolaimus*, giving the same details. Directly following this, he now described *T. melanopogon*, emphasizing (p. 287) the black throat patch and figuring this in pl. LX fig. 8. He also associated this species with the swiftlet caves on Sangiang Island (p. 288–289), but does not mention Anjer, stating instead that some had been taken in Bantam (on the coast of which Anyar is situated). From his notes, it is clear that Van Hasselt did indeed find two forms at Anyar, one most likely representing *T. saccolaimus*, the second probably including females of *T. melanopogon*. Following Van Hasselt, the provenance of the male is here assumed to be Sangiang Island, that of the females to be Anyar.

Taphozous melanopogon bicolor Temminck, 1841

Taphozous bicolor Temminck, 1841a: 290.

> Syntype, RMNH.MAM.35321 (Jentink 1887: 286 *d*; 1888: 197 *d*), female, mounted skin and skull. Loc.: “Coromandel” [Calcutta], India. Leg.: J.L.F.P. Roux, [1832–1833].
> Syntype, RMNH.MAM.35324 (Jentink 1888: 197 *g*), sex unknown, female, mounted skin, skull in situ. Loc.: “Coromandel” [Calcutta], India. Leg.: J.L.F.P. Roux, [1832–1833].

Temminck (1841a) based his description on two specimens received from Roux from Calcutta. The labels, however, which are of later date, read “Coromandel”, which must be incorrect. Jentink (1888) only corrected the provenance of RMNH.MAM.35321 to Calcutta, still giving the Coromandel coast for RMNH.MAM.35324 (see for further details Fransen et al. 1997: 230, 286–287).

Taphozous nudiventris Cretzschmar, 1826

Taphozous nudiventris Cretzschmar, 1826: 70, pl. 27b.

Paralectotype, RMNH.MAM.35962 (Jentink 1888: 198 *d*), adult, sex unknown, mounted skin, skull in situ. Loc.: Chartum, Sudan. Leg.: W.P.E.S. Rüppell.
Paralectotype, RMNH.MAM.35964 (Jentink 1888: 198 *b*), adult, sex unknown, mounted skin, skull in situ. Loc.: Egypt. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 20) designated a specimen in the SMF (SMF 4310) the lectotype.

Rhynchonycteris naso (Wied, 1820)

Proboscidea saxatilis Spix, 1823: 62, pl. 35 fig. 8.

Syntype, RMNH.MAM.17643 (Jentink 1888: 196 *b*), sex unknown, mounted skin, skull in situ. Loc.: [Sierra Vicente near Arraial de Formigas, = Montes Claros, on São Francisco River, Minas Gerais], Brazil. Leg.: J.B. von Spix [and C.F.P. von Martius], [12 July 1818].

Von Spix (1823) did not state how many specimens he has before him, but wrote of this species, that he found them in groups in rocky places opposite the river S. Francisco (1823–1832: 513–517; written by Von Martius alone after von Spix's death in 1826; see p. viii).

In this catalogue we follow Vanzolini et al. (2015) in the usage and spelling of the name of prince Maximilian zu Wied.

Turni and Kock (2008: 25) listed a syntype in the MfN (ZMB 3058).

Emballonura lineata Temminck, 1841a: 297.

Lectotype, RMNH.MAM.17642 (Jentink, 1887, 285 *a*; 1888: 196 *a*), sex unknown, mounted skin and skull. Loc.: [Paramaribo], Suriname. Leg.: H.H. Dieperink, [1825–1832].

Temminck (1841a: 298) based his description on two specimens. Jentink (1887; 1888) mentioned the presence of only one of these in Naturalis, which Husson (1962: 33) designated the lectotype.

Dieperink collected in Suriname between 1824 and 1836. All his material is from the surroundings of Paramaribo (Fransen et al. 1997: 229). Bats were included in his shipments between May 1825 and February 1832.

Nycteridae Van der Hoeven, 1855

Nycteris grandis Peters, 1865

Nycteris grandis Peters, 1865a: 351, 358.

Holotype by monotypy, RMNH.MAM.27348 (Jentink 1888: 170 *a*), adult male, mounted skin, skull in situ. Loc.: [Elmina], Ghana. Leg.: C.J.M. Nagtglas, [1859–1862].

Nagtglas collected in the surroundings of Elmina, the main Dutch settlement in the Gold Coast (Ghana), during the period 1859–1862. His last shipment containing mammals was received in Leiden on 10 November 1862. The year 1863 given by Jentink (1888) therefore cannot be correct and probably refers to the year when that material was accessioned.

Nycteris javanica É. Geoffroy Saint-Hilaire, 1813

Nycteris javanica bastiani Bergmans & Van Bree, 1986: 332.

> Paratype, ZMA.MAM.22493, female, alcohol and skull. Loc.: Gua Ainkuan, desa Torjek, Kangean Island, Indonesia. Leg.: B.E. van Helvoort (83), 21 January 1984
> Paratypes: ZMA.MAM.22487–22492.

The holotype is in the MfN (14241a), however not listed in Turni and Kock (2008).

Nycteris thebaica É. Geoffroy Saint-Hilaire, 1813

Nycteris Capensis A. Smith, 1829: 434.

> Syntype, RMNH.MAM.35900 (Jentink 1888: 171 *a*) adult, sex unknown, mounted skin, skull in situ. Loc.: Cap, [South Africa]. Leg.: A. Smith.

Smith (1829) did not mention any specimens in his description and it is unclear when the specimen from Naturalis was acquired. However, we tentatively list this specimen as a syntype.

Nycteris fuliginosa Peters, 1852b: 46, pl. X.

> Syntype, RMNH.MAM.35901 (Jentink 1888: 171 *b*), adult male, mounted skin and skull. Loc.: Boror, Mozambique. Leg.: W.C.H. Peters, [March 1846].

Peters (1852b: 47) described the discovery of this species, which he found only once in March 1846 in his house at Boror. He gave the measurements of a female and a male. According to Turni and Kock (2008: 27) there are syntypes in the MfN (ZMB 392, 562, 3954) and in NHM (NHMUK 1858.6.8.15 and 1907.1.1.337).

Nycteris thebaica labiata Heuglin, 1861a: 4–5.

Jentink (1888: 171) listed a specimen collected by Von Heuglin at Āksum in November 1861 (RMNH.MAM.27231) as type. However, Von Heuglin (1861a: 4–5) described this species from material collected near Keren, Eritrea, in a paper dated 17 August 1861, received by the editor later that year (see Von Heuglin 1862a: 25–26). The specimen therefore probably does not belong in the type series.

Phyllostomidae Gray, 1825

***Artibeus cinereus quadrivittatus* Peters, 1865**

Artibeus (Dermanura) quadrivittatus Peters, 1865a: 368.

Holotype by monotypy, RMNH.MAM.13114 (Jentink 1888: 209 *a*), adult, relaxed mount and skull. Loc.: Suriname. Leg.: H.H. Dieperink, [1825–1832].

***Artibeus planirostris fallax* Peters, 1865**

Artibeus fallax Peters, 1865a: 351, 355.

Lectotype, RMNH.MAM.13083 (Jentink 1887: 292 *b*; 1888: 208 *b*), adult, mounted skin and skull. Loc.: Suriname. Leg.: H.H. Dieperink, [1825–1832].
Paralectotypes: RMNH.MAM.13081–13082.

The lectotype is designated by Husson (1962: 173). Turni and Kock (2008: 43) list another paralectotype (ZMB 566) in the MfN.

***Artibeus obscurus* (Schinz, 1821)**

Phyllost[oma]. obscurum "Wied" Schinz, 1821: 164.

Syntype, RMNH.MAM.17925 (Jentink 1888: 208 *e*), adult male, mounted skin, skull extracted but not in collection. Loc.: [Nova Viçosa, Bahia] Brazil. Leg.: M. zu Wied [Januari 1816].

According to Wied (1826: 206) he collected this species at Villa Viçoza near the River "Peruhype". De Avila-Pires (1965 :7) was not able to locate any type specimen. The collecting date and locality are from Moraes (2009 : 27).

***Carollia brevicaudum* (Schinz, 1821)**

Phyllost[oma]. bernicaudum "Wied" Schinz, 1821: 164 (incorrect original spelling).
Phyllost[oma]. brevicaudum Schinz, 1821: 164 (emendation)
Phyllostoma brevicaudatum Schinz, 1821: 890 (incorrect subsequent spelling).
Phyllostoma bernicaudatum Schinz, 1821: 890 (incorrect subsequent spelling).

Syntype, RMNH.MAM.17692 (Jentink 1888: 206 *k*), adult, mounted skin, skull extracted but not in collection. Loc.: [Fazenda de Coroaba, Jucu River, Espirito Santo], Brazil. Leg.: M. zu Wied [November–December 1815].

Schinz (1821) based his description of several new species from Brazil on the manuscript by Wied (later published by Wied in 1826). Here, Wied (1826: 192) used the epithet *brevicaudum*. In Schinz (1821: 164) this was printed as *bernicaudum*, an error he tried to emend himself (Schinz 1821: 890), but he misspelled his own original spelling as *bernicaudatum* and corrected this in *brevicaudatum*, thus introducing three versions of the manuscript name by Wied, all incorrect.

Wied (1826: 195) described how he collected this species (here correctly spelled as *Ph. brevicaudum*) in the Fazenda de Coroaba, Jucu River in Espirito Santo, Brazil. The collecting date is from Moraes (2009: 26).

Desmodus rotundus rotundus É. Geoffroy Saint-Hilaire, 1810

Edostoma cinerea D'Orbigny, 1835: pl. 8.

> Syntype, RMNH.MAM.24945 (Jentink 1887: 293 *d*; 1888: 210 *d*), sex unknown, mounted skin and skull. Loc.: "Chili" [probably error for: Bolivia, Chiquitos, Santo Corazon]. Leg.: A.D. d'Orbigny, [1826–1833].
> Syntype, RMNH.MAM.24946 (Jentink 1887: 293 *b*; 1888: 210 *b*), sex unknown, mounted skin and skull. Loc.: "Chili" [probably error for: Bolivia, Chiquitos, Santo Corazon]. Leg.: A.D. d'Orbigny, [1826–1833].
> Syntype, RMNH.MAM.24947 (Jentink 1887: 293 *c*; 1888: 210 *c*), sex unknown, mounted skin and skull. Loc.: "Chili" [probably error for: Bolivia, Chiquitos, Santo Corazon]. Leg.: A.D. d'Orbigny, [1826–1833].

This name is first validly published in the caption of plate 8 (d'Orbigny 1835), the text followed much later (d'Orbigny 1847: 11). We follow Sherborn and Griffith (1934: 130) in the dating of issue 14 in which this plate was included. D'Orbigny (1847) later synonymised his *cinerea* with *Desmodus rufus* É. Geoffroy Saint-Hilaire, 1810.

According to d'Orbigny (1847) his material originated from Santo Corazon, Chiquitos, Bolivia. The specimens in Naturalis collected by d'Orbigny are all labelled as from Chili. Either d'Orbigny also collected this species in Chile, without mentioning it in the text or the Naturalis specimens are wrongly labelled. This discrepancy cannot be resolved. They were however available to d'Orbigny when the plate was published and are therefore included in the type series.

In the MNHN online database a holotype (MNHN-ZM-MO-1997-1811; http://coldb.mnhn.fr/catalognumber/mnhn/zm/mo-1997-1811) and a paratype (MNHN-ZM-MO-1997-1812; http://coldb.mnhn.fr/catalognumber/mnhn/zm/mo-1997-1812) are listed. D'Orbigny (1834; 1847) did not select any types, so these should be listed as syntypes.

Diaemus youngi (Jentink, 1893)

Desmodus youngi Jentink, 1893: 282.

> Holotype, RMNH.MAM.12088, adult male, alcohol and skull. Loc.: [Canje Creek], Berbice River, Guyana. Leg.: C.G. Young. Received 1893.

Dr. Charles Grove Young was in service in Guyana from 1873 to 1898. (Beolens et al. 2009: 456).

Phylloderma stenops stenops Peters, 1865

Phylloderma stenops Peters, 1865b: 513.

Holotype by monotypy, RMNH.MAM.16843 (Jentink 1888: 205 *a*), adult male, relaxed mount and skull. Loc.: Cayenne, French Guiana.

Vampyressa pusilla (Wagner, 1843)

Phyllostoma pusillum "Natterer" Wagner, 1843: 366.
Vampyressa nattereri Goodwin, 1963: 8.

Syntype for *P. pusillum*, holotype for *V. nattereri*, RMNH.MAM.17256 (Jentink, 1888: 209 *c*), adult male, relaxed mount and skull. Loc.: Ipanema, Brazil. Leg.: [J. Natterer, 18 August 1819].

According to Goodwin (1963: 10), based on the specimen catalogue in Vienna, one of the five specimens of this species collected by Natterer was exchanged with Naturalis. Collecting data and sex based on Goodwin (1963).

Thyropteridae Miler, 1907

Thyroptera tricolor Spix, 1823

Thyroptera bicolor Cantraine, 1845: 492, pl. 5.

Holotype by monotypy, RMNH.MAM.17552 (Jentink 1888: 194 *a*), adult, male, alcohol and skull. Loc.: Suriname. Leg.: H.H. Dieperink, [1825–1832].

Jentink (1888: 194) listed a female (RMNH.MAM.17551) as the type. This must be an error as Cantraine only had one male specimen available.

Molossidae Gervais, 1856

Chaerephon bemmeleni bemmeleni (Jentink, 1879)

Nyctinomys bemmeleni Jentink, 1879c: 125.

Holotype, RMNH.MAM.21649 (Jentink 1888: 203 *a*), adult female, alcohol and skull. Loc.: Liberia. Ex: Rotterdam Zoo, 1875.

Chaerephon bivittatus (Heuglin, 1861)

Nyctinomys bivittatus von Heuglin, 1861a: 4, 13.

Syntype, RMNH.MAM.35876 (Jentink 1888: 203 *a*), adult, sex unknown, alcohol and skull. Loc.: Bogos, Ethiopia. Leg.: [Th. von Heuglin, 1861]. Ex: SMNS (F. Krauss), 1862.

According to Dieterlen et al. (2013: 294) Dobson (1878: 426) designated a specimen in the SMNS (SMNS 981) the lectotype. However, Dobson did not unambiguously select a particular syntype (there are three specimens of which two male) and merely used the word “type” (ICZN art. 74.5), so we consider this lectotype designation invalid. Turni and Kock (2008: 71) also listed specimens in the MfN as syntypes (ZMB 2792a–b) and mention three syntypes in the SMNS (SMNS 981,981a–b).

Chaerephon plicatus tenuis (Horsfield, 1822)

Choerephon plicatus adustus Sody, 1936: 50.

Holotype, RMNH.MAM.33127, adult, skin and skull. Loc.: Pangandaran, Java, Indonesia. Leg.: H.J.V. Sody, 18 June 1933 (Pang. 70).
Paratypes: RMNH.MAM.32629–32630, 33083–33085, 33119–33126, 33128–33129.

Sody (1936) examined thirteen specimens in his collection from Pangandaran and three from Tjilatjap for his description.

Dysopes tenuis Temminck, 1826: 228 (misidentification).
Dysopes Labiatus Temminck, 1826: 228 (in synonymy).

The nomenclature of these specimens has caused some confusion. Temminck (1826) identified these specimens based on Horsfield (1823) as *Nyctinomus tenuis* and in our opinion this constitutes a misidentification. Therefore, *Dysopes tenuis* Temminck, 1826 is not an available name (ICZN art. 49). In a footnote Temminck (1826) mentioned that until now he used the name *labiatus* for this species. This name is published in synonymy and we have found no subsequent use as an available name. Therefore [*Dysopes*] *labiatus* Temminck, 1826 is also not an available name (ICZN art. 11.6).

After studying one of the specimens (RMNH.MAM.35784, the only specimen with an extracted skull and identified as *Mops mops*) Tate (1941a: 2) erroneously concluded that the description by Temminck applies to a different taxon, for which the name *Mops labiatus* (Temminck, 1827) would be available (this conclusion was followed by Hill 1961: 41; Corbet and Hill 1992; Wilson and Reeder 2005: 443; Taylor 2019: 657; Taylor et al. 2020: 204). However, as the name *D. labiatus* Temminck, 1826 is not available, we don't agree with Tate (1941a) that this name might have priority over *Mops mops*.

Jentink (1888) listed specimens as types for *Dysopes tenuis* Temminck, 1826 (RMNH.MAM.27750, 35784–35788). However as this name is not available, these are not types.

Chaerephon pumilus (Cretzschmar, 1830–1831)

Dysopus pumilus Cretzschmar, 1830–1831: 69, pl. 27(a).

Paralectotype, RMNH.MAM.27334 (Jentink 1887: *b*; Jentink 1888: 203 *a*), adult, sex unknown, mounted skin and skull. Loc.: Abyssinia. Leg.: W.P.E.S. Rüppell. Paralectotypes: RMNH.MAM.27335, 27336.

Another skull in Naturalis (RMNH.MAM.27338) is not part of the type series, as it was collected by Rüppell in Egypt. Cretzschmar (1830) only mentioned Masaua (Eritrea) as the type locality. Mertens (1925: 20) designated a specimen in the SMF (SMF 4311) the lectotype.

Cheiromeles torquatus caudatus Temminck, 1841

Cheiromeles caudatus Temminck, 1841c: 348.

Syntype, RMNH.MAM.35775 (Jentink 1887: 288 *c*; 1888: 200 *a*), adult female, mounted skin and skull. Loc.: Bantam, Java, Indonesia. Leg.: S. Müller, [1826–1836].
Syntype, RMNH.MAM.35776 (Jentink 1888: 200 *b*), adult male, mounted skin, skull in situ. Loc.: Java, Indonesia.
Syntype, RMNH.MAM.35777 (Jentink 1888: 200 *c*), adult female, mounted skin, skull extracted but not in collection. Loc.: Java, Indonesia.
Syntype, RMNH.MAM.35779 (Jentink 1887: 288 *a*), adult, skeleton. Loc.: Bantam, Java, Indonesia. Leg.: S. Müller, [1826–1836].

According to Jentink (1888: 200) RMNH.MAM.35777 originated in Borneo. However, the label clearly gives Java as collecting locality. The label of RMNH.MAM.35776 originally stated Borneo, but is corrected into Java (corresponding with Jentink 1888: 200). Jentink probably mixed up these two specimens in his catalogue.

Cheiromeles torquatus jacobsoni Thomas, 1923

Cheiromeles jacobsoni Thomas, 1923b: 592.

Paratype, RMNH.MAM.28053, male, skull and alcohol. Loc.: Lugu, Simeulue, Aceh, Indonesia. Leg.: E. Jacobson, May 1913.
Paratypes: RMNH.MAM.30440–30459.

The holotype is in the NHM (NHMUK 23.10.7.9).

Cynomops abrasus (Temminck, 1826)

Dysopes abrasus Temminck, 1826: 212, 232.

Syntype, RMNH.MAM.17374 (Jentink 1888: 201 *a*), subadult female, relaxed mount and skull. Loc.: Brazil. Leg.: M. zu Wied [1815–1817].

Most sources (Wilson and Reeder 2005: 436; Taylor et al. 2020: 196) date this name for the year 1827, as this is the date on the title page of volume I of the Monographies de mammalogie. However, several parts were already published before that date, including this one, the sixth, which appeared in 1826. This fact was already mentioned by Sherborn (1922: cxxii) and has recently been confirmed by Kitchener et al. (2022). Temminck (1826) gave no indication of the number of specimens available to him.

Eger (2008: 403) restricted the type locality to Votuporanga, São Paulo, Brazil, however without selecting a lectoype.

Eumops maurus (Thomas, 1901)

Eumops geijskesi Husson, 1962: 246.

Holotype, RMNH.MAM.12943 (Jentink 1888: 200 *g*), adult female, alcohol and skull. Loc.: Suriname. Leg.: W.J. Bresser, 1862.
Paratypes: RMNH.MAM.12944–12946.

Molossus molossus (Pallas, 1766)

Molossus velox Temminck, 1826: 234.

Temminck (1826) based his description on two specimens in the NMW collected by Natterer. Von Pelzeln (1883: 44) mentioned three specimens present in the NMW. According to Herzig in Turni and Kock (2008: 70) no specimens could be found in Vienna. Turni and Kock (2008) listed a syntype (ZMB 2468) in the MfN.

Molossus rufus É. Geoffroy Saint-Hilaire, 1805

Dysopes alecto Temminck, 1826: 231.

Syntype, RMNH.MAM.13023 (Jentink 1887: 288 *b*; 1888: 200 *a*), adult, sex unknown, mounted skin and skull. Loc.: [Interieur de Bresil], Brazil. Leg.: M. zu Wied [1815–1817].

Temminck (1826) gave no indication of the number of specimens available to him, but mentioned the interior of Brazil as type locality. We follow Jentink (1887: 288) who only included RMNH.MAM.13023 in the type series. All other specimens (RMNH.MAM.13020, 25665) listed by Jentink as *Dysopes alecto* are therefore excluded from the type series.

Otomops formosus Chasen, 1939: 186.

Otomops formosus Chasen, 1939: 186.

Holotype, RMNH.MAM.15322, adult male, skin and skull. Loc.: Tjibadak [Cibadak], Java, Indonesia. Leg.: M. Bartels Jr, 18 December 1934. Ex: Bartels (1998), June 1954.
Paratype: RMNH.MAM.15321.

Ozimops petersi (Leche, 1884)

Nyctinomys petersi Leche 1884: 49.

Possible paralectotype, RMNH.MAM.28483 (Jentink 1888: 204 *a*), adult male, alcohol and skull. Loc.: Adelaide, Australia. Ex: C. Schneider, 1888.
Possible paralectotype: RMNH.MAM.28484.

Jentink (1888: 204) listed the above specimens as types for *petersi,* however there is no indication they were seen by Leche. We follow Jentink, but there is some doubt concerning their type status. Reardon et al. (2014: 124) designated a specimen in the NRM (NRM A59/1983809.3137) the lectotype.

Tadarida brasiliensis brasiliensis (I. Geoffroy Saint-Hilaire, 1824)

Dysopes nasutus Temminck, 1826: 233 (misidentification)

Temminck (1826) erroneously used the name *Molossus nasutus* Spix, 1823 (= *Promops nasutus* Spix, 1823) for this taxon. Therefore, *Dysopes nasutus* Temminck, 1826 is not an available name (ICZN art. 49) and RMNH.MAM.17575–17576 (collected by Natterer in Brazil) and Jentink (1887; 1888) erroneously listed them as types.

Tadarida teniotis (Rafinesque, 1814)

Dysopes rupelii [sic] Temminck, 1826: 224 (incorrect original spelling).
Dysopes rueppellii Temminck, 1826: 224 (emendation).

Paralectotype, RMNH.MAM.35946 (Jentink 1887: 289 *b*; 1888: 201 *a*), adult, sex unknown, mounted skin and skull. Loc.: Egypt. Leg.: W.P.E.S. Rüppell.
Paralectotypes: RMNH.MAM.35947, 35948, 35953 (missing).

Temminck (1826) referred to three specimens in Naturalis and two in the SMF, all collected by Rüppell. Jentink (1888: 201–202) listed four specimens as type, which all could be part of type series. RMNH.MAM.35953 could not be located.
Kock and Nader (1984: 132) designated one of the two specimens in the SMF (SMF 12380) the lectotype.

Vespertilionidae Gray, 1821

Arielulus circumdatus (Temminck, 1840)

Vespertilio circumdatus Temminck, 1840: 214.

Syntype, RMNH.MAM.35433 (Jentink 1888: 178 *a*), adult female, mounted skin and skull. Loc.: Tapos, Java, Indonesia. Leg.: H. Boie and H.C. Macklot, [June 1826–December 1826].

Syntype: RMNH.MAM.35434 (Jentink 1887: 277 *a*), sex unknown, skull. Loc.: Tapos, Java, Indonesia. Leg.: H. Boie, [4 July–23 August 1827].

According to Jentink (1888: 178) RMNH.MAM.35433 originated from Tapos, Java and was collected by Boie and Macklot. If this is correct, this specimen is collected in the period after the arrival of these members of the *Natuurhistorische Commissie voor Nederlandsch-Indië* on Java (June 1826) and before they left for their first expedition (December 1826), as this was the only interval that Boie and Macklot were together in this area (Jacobs 2023: 26). Boie stayed on his own at Tapus between 4 July and 23 August 1827 (Boie 1833: 495; Susanna 1834: 51, 282; Veth 1879: 52).

Turni and Kock (2008: 63) listed a syntype (ZMB 3554) in the MfN.

Barbastella leucomelas (Cretzschmar, 1826)

Vespertilio leucomelas Cretzschmar, 1826: 73.

Paralectotype, RMNH.MAM.35738 (Jentink 1887: 274 *b*; 1888: 172 *b*), adult, mounted skin and skull. Loc.: Arabie petree [Sinai], Egypt. Leg.: W.P.E.S. Rüppell, [1826].
Paralectotype: RMNH.MAM.35739.

The pedestals of these mounted specimens have been mixed up, this error was restored.

Mertens (1925: 21) designated a specimen in the SMF (SMF 4373) the lectotype.

Eptesicus brasiliensis melanopterus (Jentink, 1904)

Vesperus melanopterus Jentink, 1904: 176.

Holotype, RMNH.MAM.12092, adult female, alcohol and skull. Loc.: Paramaribo, Suriname. Leg.: M. Greshoff, September 1903.

*Vespertilio ferrugine*us Temminck, 1840: 239.
Myotis surinamensis Husson, 1962: 218 (nomen novum).

Lectotype, RMNH.MAM.17363 (Jentink 1888: 187 *a*), adult, relaxed mount and skull. Loc.: Suriname. Leg.: H.H. Dieperink [1824–1842].

Temminck (1840) based his description on several specimens in alcohol of which only RMNH.MAM.17363 is still present in Naturalis. Husson (1962: 221) designated it the lectotype and introduced the nomen novum *Myotis surinamensis* because *Vespertilio ferrugineus* is preoccupied by *ferrugineus* Brehm, 1827 (= *Nyctalus lasiopterus*).

Eptesicus fuscus fuscus (Beauvois, 1796)

Vespertilio ursinus Temminck, 1840: 236.
The description by Temminck (1840) is based on information provided by Wied, who had collected seven specimens on the banks of the Missouri on 20 May 1833 (Wied 1861: 192). Temminck did not mention any specimens in Naturalis and the two specimens (RMNH.MAM.52658 and 52660) from Missouri in the Naturalis collection are probably not types, as they do not give Wied as collector.

Eptesicus hottentotus (A. Smith, 1833)

Vespertilio megalurus Temminck, 1835a: 206.

> Syntype, RMNH.MAM.35893 (Jentink 1887: 275 *a*; 1888: 175 *a*), adult, sex unknown, mounted skin and skull. Loc.: South Africa. Leg.: H.B. van Horstok, [1826–1834].

Temminck (1835: 207) had several specimens before him; only RMNH.MAM.35893 is still present in Naturalis. The whereabouts of the other syntypes are unknown.

Kearney et al. (2008) proposed to consider *Eptesicus hottentotus* (A. Smith, 1833) a nomen dubium based on the facts that no type specimens are available, confusion over the *terra typica* and the taxonomic unclarity caused by Smith (1849), who synonymised his *E. hottentotus* and *E. capensis* with *Vespertilio minutus* Temminck, 1835 (see there). Kearney et al. (2008) proposed to designate the next available name, *Eptesicus megalurus* Temminck, 1835 for this taxon. They referred to RMNH.MAM.35893 as the lectotype for *Vespertilio megalurus* Temminck, without an express statement of deliberate designation (ICZN 74.7.3). We have not been able to find any other valid lectotype designation, so we list the above specimen as syntype.

Eptesicus isabellinus isabellinus (Temminck, 1840)

Vespertilio isabellinus Temminck, 1840: 205.

> Lectotype, RMNH.MAM.17648 (Jentink 1887: 275 *p*; 1888: 173 *k*), adult female, relaxed mount and skull. Loc.: Tripoli, Libya. Leg.: J.F.H. Clifford Kocq van Breughel, [1829–1834]. Paralectotypes: RMNH.MAM.17649–17653.

F.H. Clifford Kocq van Breughel served as consul for the Netherlands in Libya from 1829 until 1835. The lectotype was designated by Harrison (1963: 208).

Eptesicus nilssonii (Keyserling & Blasius, 1839)

Vesperus Nilssonii Keyserling & Blasius, 1839: 315.
Keyserling and Blasius (1839: 315) based their description on *Vespertilio Kuhllii* by Nilsson (1836: pl. 34) and there is no indication of other specimens they might have

had before them. Jentink (1888: 175) listed RMNH.MAM.35568 as one of the types, which is unlikely, as the date when the specimen entered Naturalis (1873) is much later than the description and the provenance is unclear. Two other specimens received from Blasius (from the Harz, Germany and Stockholm, Sweden) could also be types, but they entered the Naturalis collection in 1859, also much later than the description, making their type status very uncertain.

Eptesicus serotinus turcomanus **(Eversmann, 1840)**

Vespetilio [sic] turcomanus Eversmann, 1840: 21.

> Possible syntype, RMNH.MAM.27408 (Jentink 1887: 275 *o*; 1888: 173 *j*), juvenile female, mounted skin and skull. Loc.: Altai, Russia. Leg.: A.E.F. Eversmann. Ex: ZIN RAS (F.D. Brandt), 1869.

Jentink (1888: 173) listed this specimen as one of the types; we tentatively follow this. Eversmann (1840) did not mention any specimens and we have no collecting or acquisition date for this specimen.

Glischropus javanus Chasen, 1939

Glischropus javanus Chasen, 1939: 187.

> Holotype, RMNH.MAM.15323, male, skin and damaged skull. Loc.: Tjiparaj [Ciparay], SW slope of Mt Pangrango at 900–1000 m, Java, Indonesia. Leg.: M. Bartels Jr, 28 December 1934.

Harpiocephalus harpia harpia **(Temminck, 1840)**

Vespertilio harpyia Müller, 1840a: 23 (nomen nudum).
Vespertilio harpia Temminck, 1840: 219, pl. LV figs 5, 6.

> Lectotype, RMNH.MAM.13470 (Jentink 1888: 186 *b*), [male], sex unknown, mounted skin and skull. Loc.: SW slope of Mt Gede, Java, Indonesia. Leg.: S. Müller, [September 1831 or May 1836].
> Paralectotype: RMNH.MAM.13471 (Figured in Temminck (1840: pl. LV).

RMNH.MAM.13471 can with some difficulty be recognized from Temminck's plate LV, in agreement with Jentink (1888: 186). Temminck (1840: 220) stated: "La femelle est un peu plus pâle que le mâle", thereby implying that he had before him at least one specimen of either sex. The dry skins cannot be sexed any longer. However, both specimens are adult and since in this species the females are larger than the males, the larger one (RMNH.MAM.13471) is taken to be the female; the skull of this was extracted in 1955. Husson (1955: 122) designated the lectotype and discussed the earlier mislabeling of Jentinks skull *a*.

Müller ascended Mt Gede on 8–19 September 1831 and again in May 1836, in both cases with the botanist P.W. Korthals (Van Steenis-Kruseman 1950: 295–297, 376).

Hypsugo imbricatus (Horsfield, 1824)

Vespertilio pipistrelloides "Kuhl" Temminck, 1840: 217.

Temminck (1840) published this manuscript name by Kuhl in the synonymy of *H. imbricatus* (Horsfield, 1824). Jentink (1888: 177) listed two specimens (RMNH.MAM.35441 and 35442) as types for *Vespertillio pipistrilloides* [sic], but gave no formal description. We have found no subsequent use as a valid name. Therefore this name is not available (ICZN art. 11.6).

Hypsugo macrotis (Temminck, 1840)

Vesperugo macrotis Temminck, 1840: 218.

Syntype, RMNH.MAM.35448 (Jentink 1888: 178 *n*), adult, mounted skin, skull in situ. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller [1833–1835].
Syntype, RMNH.MAM.35449 (Jentink 1888: 178 *o*), adult, mounted skin, skull in situ. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller [1833–1835].
Syntype, RMNH.MAM.35469 (Jentink 1887: 277 *m*), adult, skull. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller [1833–1835].
Syntype, RMNH.MAM.35470 (Jentink 1887: 277 *n*), adult, skull. Loc.: Padang, Sumatra, Indonesia.
Syntype, RMNH.MAM.35471 (Jentink 1887: 277 *o*), adult, skull. Loc.: Padang, Sumatra, Indonesia.

Hypsugo savii darwini (Tomes, 1859)

Vesperugo maurus Blasius, 1853: 35.

Syntype, RMNH.MAM.40249 (formerly 332) (Jentink 1888: 178 *f*), adult female, alcohol. Loc.: St. Gotthard, Switzerland. Leg. J.H. Blasius. Received 1859.

Turni and Kock (2008: 64) listed three syntypes in the MfN (ZMB 3040, 3113, 480).

Hypsugo vordermanni (Jentink, 1890)

Vesperugo vordermanni Jentink, 1890b: 152.

Holotype by monotypy, RMNH.MAM.35570, adult female, alcohol and skull. Loc.: Billiton [Belitung] Island, Indonesia. Leg.: A. Vorderman, June 1888. Received 1890.

Kerivoula papillosa papillosa (Temminck, 1840)

Vespertilio papillosus Temminck, 1840: 220, pl. LV figs 1–4.

Syntype, RMNH.MAM.35753 (Jentink 1887: 284 *a*; 1888: 193 *a*), female, mounted skin and incomplete skull. Loc.: [Hariang], Bantam District, Java, Indonesia. Leg.: J.C. van Hasselt, October [1821 or 1822].
Syntype, RMNH.MAM.35754 (Jentink 1888: 193 *b*), [male], mounted skin, skull in situ. Loc.: [Padang District], Sumatra, Indonesia. Leg.: S. Müller, [1833–1835].

Temminck (1840: 221) stated that he had three specimens, two females from Java and a male from Sumatra. Jentink (1888) identified RMNH.MAM.35753 as the specimen figured in Temminck's pl. LV.

Only one of the two Javan skins is still present in Naturalis; it is attributed to Kuhl and van Hasselt. In an inventory of mammals sent to Leiden in December 1822, preserved in the archives of Naturalis, van Hasselt recorded "Vespertilio papillosus Mihi", specifying the provenance as "Harriang in regione montana Bantamiae Ins Java. mense october". A drawing by G.L. Keultjes and A. Maurevert of a freshly caught specimen bears the locality "Lewibong-er", elsewhere in van Hasselt's list spelled "Lewiboenger". After Kuhl's death on 14 September 1821, van Hasselt continued collecting in Bantam District until his own death in September 1823 (Van Steenis-Kruseman 1950: 220), so specimens collected in October 1821 or 1822 were obtained by van Hasselt alone.

The Sumatran specimen is labelled 1836. Müller collected in West Sumatra, mainly in Padang District, from 20 July 1833 until his return to Java in January 1836 (Van Steenis-Kruseman 1950: 296–297, 376). The year 1836 most probably relates to the arrival of his collections in Leiden, the greater part of which was shipped in 1835.

Tate (1940: 8) restricted *K. papillosa* to Java, without designating a lectotype.

Vespertilio oreias Temminck, 1840: 270.

Holotype by monotypy, RMNH.MAM.35407 (Jentink 1888: 188 *a*), adult, sex unknown, mounted skin. Loc.: "Continent de l'Inde" "Singapore".

Csorba et al. (2016) discussed the taxonomic status of *Myotis oreias* and concluded that it should be considered a nomen dubium based on the composite nature of the specimen (the only known of this species) and the confusion of its provenance. The skin shows characteristics of *Kerivoula* (probably *papillosa* complex, which we here follow), while the skull fragments clearly belong to a *Myotis*. Temminck gave as provenance "Continent de l'Inde" (Indian continent), later Jentink (1887, 1888) changed this to Singapore, where the consignment originated from. Temminck clearly had a skull at hand, probably still in situ as he had no access to the molars. It is probable that due to a later mix up the wrong skull has been associated with the skin, there is no other skull in Naturalis that could be identified as the original. Therefore we follow Csorba and exclude the skull from the type series.

Lasionycteris noctivagans (Le Conte, 1831)

Vespertilio pulverulentus Temminck, 1840: 236.
The description by Temminck (1840) was based on specimens collected by Wied on the banks of the Missouri in Mai–July 1833 (Wied 1861: 194). None of these specimens are in Naturalis.

Myotis albescens (É. Geoffroy Saint-Hilaire, 1806)

Vespertilio leucogaster Schinz, 1821: 180.

Paralectotype, RMNH.MAM.17622 (Jentink 1887: 283 *c*; 1888: 192 *b*), adult, relaxed mount and skull. Loc.: Mucuri River, Brazil. Leg.: M. zu Wied [January–June 1816].

Wied (1826: 271) gave an account of this species and described the locality where the specimens were collected. Wied travelled down the Rio Mucuri in the beginning of 1816 (Moraes 2009).

The lectotype was designated by De Avila-Pires (1965: 8) in the AMNH (AMNH 385).

Myotis bartelsii Jentink, 1910

Chrysopteron Bartelsii Jentink, 1910a: 74.
The holotype was collected by M. Bartels, Sr. on the top of Mt Pangrango, Java, at an altitude of 10.000 ft (c. 3300 m), on 22 March 1908. Bartels sent it to Jentink for identification, who described it and returned it to Bartels. According to Becking (1989: 81), it has been separated from the Bartels collection and was not included when the latter came to Naturalis. It is now in the MZB (MZB 10573).

Myotis capaccinii capaccinii (Bonaparte, 1837)

Vespertilio megapodius Temminck, 1840: 189.

Syntype, RMNH.MAM.27477 (Jentink 1887: 281 *d*; 1888: 187 *a*), sex unknown, mounted skin and skull. Loc.: Sardinia, Italy. Leg.: F.J. Cantraine, [October 1829–April 1830].
Syntype, RMNH.MAM.27478 (Jentink 1887: 281 *e*; 1888: 187 *b*), sex unknown, mounted skin and skull. Loc.: Trieste [?], Italy. Leg.: F.J. Cantraine, [January 1832?].
Syntype, RMNH.MAM.27479 (Jentink 1888: 187 *c*), adult, sex unknown, mounted skin, skull in situ. Loc.: Sardinia. Leg.: F.J. Cantraine, [October 1829–April 1830].
Syntype, RMNH.MAM.27480 (Jentink 1888: 187 *d*), sex unknown, mounted skin, skull in situ. Loc.: Sardinia. Leg.: F.J. Cantraine, [October 1829–April 1830].
Syntype, RMNH.MAM.27481 (Jentink 1888: 187 *e*), sex unknown, mounted skin, skull in situ. Loc.: Sardinia. Leg.: F.J. Cantraine, [October 1829–April 1830].
Syntype, RMNH.MAM.27482 (Jentink 1888: 187 *f*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Sardinia. Leg.: F.J. Cantraine, [October 1829–April 1830].

Syntype, RMNH.MAM.27483 (Jentink 1888: 187 *g*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Sardinia. Leg.: F.J. Cantraine, [October 1829–April 1830].

According to Temminck (1840) all specimens are from Sardinia and collected by Cantraine (16 October 1829 till 28 April 1830, see Fransen et al. 1997: 222). Temminck overlooked, as did Jentink (1887; 1888), that one of Cantraine's specimens (RMNH 27478) is labelled "Triest", although the label is not original. Cantraine was in Trieste from 19 January to the end of February 1832 (Fransen et al. 1997). In a letter dated Trieste, 5 February 1832, which accompanied a shipment sent to Leiden on 4 February, Cantraine mentions "quelques chauve-souris de Dalmatie…" This renders it more likely that the present specimen had in fact been collected in the surroundings of Ragusa (Dubrovnik), Croatia, where Cantraine worked from about March 1831 till 16 January 1832 (Fransen et al. 1997), and was labelled according to the port of shipment. Cantraine returned to Leiden in 1833, so all his material must have been present in the museum when Temminck described this form. The animal from Trieste or Dalmatia therefore is included in the type series here. Strangely, the specimens from Sardinia in alcohol (skins *i*–*p*) are not listed as types by Jentink (1888), though they are of the same provenance and must have been available to Temminck; these are no longer in Naturalis.

Myotis dasycneme **(Boie, 1825)**

Vespertilio limnophilus Temminck, 1840: 176, pl. XLVIIII figs 1, 2.

Syntype, RMNH.MAM.13292 (Jentink 1888: 187 *f*), adult male, alcohol specimen, skull in situ. Loc.: Lac de Harlem [Haarlemmermeer], The Netherlands. Leg.: 1838.

Temminck (1840: 177) did not specify how many animals he had before him; he gave the measurements of one adult and described juveniles. Jentink (1888) did not mention any types. However, the above specimen is dated 1838, so must be one of the animals seen by Temminck, in agreement with a hand-written note "Type du V. limnophilus" in a working copy of Jentink's catalogue. Temminck implied that his description is based on material from the Netherlands.

Apart from the above animal, there are three mounted skins, skulls in situ: two males (RMNH.MAM.27352–27353) and one unsexed juvenile (RMNH.MAM.27354), labelled "Hollande". None of the labels (not original) or pedestals bear any note by or refer to Temminck, and the date of collection or acquisition is unknown. Thus, it is not clear whether they may belong in the type series. None of the Naturalis specimens are recognizable from Temmick's plate XLVIII.

Myotis hasseltii hasseltii (Temminck, 1840)

Vespertilio hasseltii Temminck, 1840: 225.

Syntype, RMNH.MAM.35147 (Jentink 1888: 186 *e*), juvenile female, mounted skin, skull in situ. Loc.: Bantam [Banten], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35148 (Jentink 1888: 186 *a*; 1887: 280 *a*), subadult female, mounted skin and skull. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [September 1821–September 1823].

Temminck (1840) based his description on two young females. According to Jentink (1888: 186) these are the above listed specimens. Jentink (1888) noted RMNH.MAM.35147 as an adult which was collected by Kuhl and Van Hasselt. According to Temminck both specimens were collected by Van Hasselt only. The labels of both skins give Kuhl and van Hasselt as collectors, however the label with the skull gives van Hasselt as the only collector.

Vespertilio aurulentus "Temminck" Jentink, 1888: 186 (in synonymy).
Jentink (1888) published this manuscript name by Temminck as a synonym of *Myotis hasseltii* without a formal description and listed several types. We have found no subsequent use as a valid name. Therefore this name is not available.

Myotis hasseltii macellus (Temminck, 1840)

Vespertilio macellus Temminck, 1840: 230.

Syntype, RMNH.MAM.35549 (Jentink 1887: 280 *g*; 1888: 186 *a*), adult, sex unknown, mounted skin and skull. Loc.: Borneo, Indonesia. Leg.: S. Müller and P.W. Korthals, [28 July–17 December] 1836.
Syntype, RMNH.MAM.35550 (Jentink 1888: 186 *b*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Borneo, Indonesia. Leg.: S. Müller and P.W. Korthals, [28 July–17 December] 1836.

Turni and Kock (2008: 59) listed a syntype (ZMB 3553) in the MfN.

Myotis horsfieldii horsfieldii (Temminck, 1840)

Vespertilio horsfieldii Temminck, 1840: 226.

Syntype, RMNH.MAM.35551 (Jentink 1888: 186 *c*), adult, sex unknown, mounted skin and skull. Loc.: G. Gede, Java, Indonesia. Leg.: H. Boie, [July–early August 1821].
Syntype, RMNH.MAM.35552 (Jentink 1888: 186 *d*), adult male, mounted skin, skull in situ. Loc.: G. Gede, Java, Indonesia. Leg.: H. Boie, [July–early August 1821].
Syntype, RMNH.MAM.35553 (Jentink 1888: 186 *e*), adult female, mounted skin, skull in situ. Loc.: G. Gede, Java, Indonesia. Leg.: H. Boie, [July–early August 1821].
Syntype, RMNH.MAM.35554 (Jentink 1888: 186 *f*), adult female, mounted skin, skull in situ. Loc.: G. Gede, Java, Indonesia. Leg.: H. Boie, [July–early August 1821].

Syntype, RMNH.MAM.35555 (Jentink 1887: 280 *a*), subadult, sex unknown, skeleton. Loc.: Buitenzorg [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35556 (Jentink 1887: 280 *b*), adult, sex unknown, skull. Loc.: Buitenzorg [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35557 (Jentink 1887: 280 *c*), adult, sex unknown, skull. Loc.: Buitenzorg [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35558 (Jentink 1887: 280 *d*), adult, sex unknown, skull. Loc.: Buitenzorg [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35559 (Jentink 1887: 280 *e*), adult, sex unknown, skull. Loc.: Buitenzorg [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35560 (Jentink 1887: 280 *f*), adult, sex unknown, skull. Loc.: Buitenzorg [Bogor], Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].

In his original description Temminck (1840) only referred to specimens collected by Kuhl and Van Hasselt, although also the material collected by Boie must have been at his disposal. We follow Jentink (1887; 1888) in including these specimens in the type series. Turni and Kock (2008: 58) listed a syntype (ZMB 2558) in the MfN, although there is little data with the specimen to support this status.

Myotis lucifugus lucifugus (Le Conte, 1831)

Vespertilio carolii Temminck, 1840: 237.

Syntype, RMNH.MAM.25691 (Jentink 1888: 191 *a*; 1887: 283 *a*), adult, sex unknown, mounted skin and skull. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25692 (Jentink 1888: 191 *b*), juvenile female, mounted skin, skull in situ. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25693 (Jentink 1888: 191 *c*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].

Myotis macrodactylus macrodactylus (Temminck, 1840)

Vespertilio macrodactylus Temminck, 1840: 231.

Syntype, RMNH.MAM.35402 (Jentink 1888: 187 *h*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.35403 (Jentink 1887: 281 *a*), adult, sex unknown, skull. Loc.: Japan.
Syntype, RMNH.MAM.35404 (Jentink 1887: 281 *b*), adult, sex unknown, skull. Loc.: Japan.
Syntype, RMNH.MAM.35405 (Jentink 1887: 281 *c*), subadult, sex unknown, skull. Loc.: Japan.

According to Temminck (1840: 231) Naturalis received four specimens collected in the area of Nagasaki.

Myotis muricola (Hodgson, 1840)

Vespertilio Gärtneri "Kuhl" Temminck, 1840: 229 (in synonymy).

Temminck (1840) published this manuscript name by Kuhl in the synonymy of *Vespertilio tralatitius* without providing a formal description. Jentink (1888: 190) listed five specimens (RMNH.MAM.35412–35416) collected by Kuhl and van Hasselt and Boie in Java as types for *V. gartneri* "Kuhl" in the synonymy of *Myotis muricola*. This name has not been validly used since and is therefore not available.

Myotis nigricans (Schinz, 1821)

Vespertilio parvulus Temminck, 1840: 246.

Syntype, RMNH.MAM.17621 (Jentink 1887: 283 *a*; 1888: 191 *a*), adult, sex unknown, relaxed mount and skull. Loc.: Brazil. Leg.: J. Natterer. Ex: M. zu Wied.

Temminck (1840) specifically mentioned Natterer as the collector of the material used for his description and added that the specimens are in Vienna and Leiden. Jentink (1887; 1888) gave Natterer as collector and Wied as donator for this specimen.

Vespertilio arsinoë Temminck, 1840: 247.

Holotype by monotypy, RMNH.MAM.17635 (Jentink 1887: 283 *a*; 1888: 192 *a*), adult female, mounted skin and skull. Loc.: Suriname.

Myotis rosseti (Oei, 1951)

Glischropus rosseti Oei, 1951: 4.

Syntype, RMNH.MAM.19629, adult female, alcohol and skull. Loc.: Kampuchea. Leg.: C.W. Rosset. Ex: Linnaea, 1889.
Syntype, RMNH.MAM.19630, juvenile female, alcohol, skull in situ. Loc.: Kampuchea. Leg.: C.W. Rosset. Ex: Linnaea, 1889.

Oey (1951; also spelled as Oei) based his description on two specimens.

Myotis tricolor (Temminck, 1832)

Vespertilio tricolor Temminck in Smuts, 1832: 106.

Syntype, RMNH.MAM.35899 (Jentink 1887: 281 *a*), adult, sex unknown, skull. Loc.: Cap, South Africa. Leg.: H.B. van Horstok [1828–1832].
Syntype, RMNH.MAM.35898, (Jentink 1887: 281 *a*; 1888: 188 *a*), adult female, mounted skin and skull. Loc.: Cap, South Africa. Leg.: H.B. van Horstok [1828–1832].

RMNH.MAM.35898 is marked on the stand as lectotype and it is recorded in the acquisition registers of Naturalis as such. Furthermore, in the original manuscript by Smeenk it was also listed as the lectotype. However, we have not been able to find any publication to support this.

For information on the collecting activities by Van Horstok, see *Taphozous leucopterus*.

Myotis weberi (Jentink, 1890)

Kerivoula weberi Jentink, 1890a: 129, pl. XI.

Holotype, RMNH.MAM.35827, male, alcohol and skull. Loc.: Loka near Bonthain [at 1150 m], Sulawesi, Indonesia. Leg.: M. Weber (6), [October–November 1888].

Weber collected at Loka, situated near Bonthain at 1150 m altitude, during the end of October and the beginning of November 1888 (Weber 1890: vi–vii, Karte III).

Miniopterus australis Tomes, 1858

Miniopterus Australis Tomes, 1858: 9.

Paralectotype, RMNH.MAM.25076, adult female, relaxed mount and skull. Loc.: Java, Indonesia. Leg.: H. Boie, 1826–1827. (= *Miniopterus schreibersii blepotis)*
Paralectotypes: RMNH.MAM.25079 (= *Miniopterus schreibersii blepotis)*.

Tomes (1858) described this species based on specimens in the NHM from Australia (later corrected to Loyalty Islands and collected by Grey), a specimen from Timor (received from Naturalis) and the description by Temminck (1840: 212) of females of *Miniopteris blepotis*.

Hill (1983: 172) designated a specimen in the NHM (NHMUK.1854.5.19.5) the lectotype and restricted the type locality to Loyalty Islands.

Miniopterus tibialis "Temminck" Tomes, 1858: 126.

Syntype, RMNH.MAM.25084 (Jentink 1888: 194 *l*), adult, relaxed mount and skull. Loc.: Amboine [Ambon], Indonesia. Leg.: E.A. Forsten [1842–1843].
Syntype, RMNH.MAM.25085 (Jentink 1888: 194 *m*), adult, relaxed mount and skull. Loc.: Amboine [Ambon], Indonesia. Leg.: E.A. Forsten [1842–1843] (= *Miniopteris schreibersii blepotis*).
Syntype, RMNH.MAM.25086 (Jentink 1888: 194 n), adult, relaxed mount and skull. Loc.: Amboine [Ambon], Indonesia. Leg.: E.A. Forsten [1842–1843].
Syntype, RMNH.MAM.25087 (Jentink 1888: 194 o), adult, relaxed mount and skull. Loc.: Amboine [Ambon], Indonesia. Leg.: E.A. Forsten [1842–1843].

Tomes (1858) described the species on the basis of a 'somewhat mutilated' specimen in the NHM and four specimens labelled *Miniopterus tibialis* he had seen in Naturalis.

Miniopterus blepotis (Temminck, 1840)

Vespertilio blepotis Temminck, 1840: 212.

Lectotype, RMNH.MAM.35366 (Jentink 1887: 285 *h*), adult, sex unknown, skull. Loc.: Java, Indonesia.
Paralectotypes: RMNH.MAM.25076–25079, 35365, 35367, 35368; 29795–29797 and 35369–35379 (=*Miniopterus fuliginosus*).

The nomenclature of this typeseries is complicated and the type series consists of several taxa (see Tate 1940; Maeda 1982). Maeda (1982: 25) designated the lectotype and identified the paralectotypes.

Jentink (1887: 285; 1888: 194) also listed specimens collected by Forsten on Seram and Ambon as belonging to the type series (RMNH.MAM.25083, 25085 =*M. blepotis*; 25080–25082 =*M. magnater*; 25084, 25086–25087 =*M. australis*). However these cannot be part of the type series as they were collected in 1842, after the publication of the description. There are no other specimens from Ambon in the Naturalis collection that could be types. Turni and Kock (2008: 56) listed several paralectotypes (ZMB 2556, 2641, 2642) in the MfN, however the data with these specimens is not conclusive.

Kuhl and Van Hasselt collected on Java from September 1820 until December 1821. Boie collected on Java from 1825 until 1827.

Miniopterus fuliginosus (B.H. Hodgson, 1835)

Miniopterus ravus Sody, 1930: 271.

Holotype, RMNH.MAM.29782, adult female, skin and skull. Loc.: Tjilatjap [Cilacap], Babakan, Java, Indonesia. Leg.: H.J.V. Sody, 20 October 1929 (VII).
Paratype: RMNH.MAM.29788.

Miniopterus natalensis (Smith, 1833)

Vespertilio d'asythrix Temminck, 1840: 268.

Holotype by monotypy, RMNH.MAM.25093 (Jentink 1887: 285 *aa*; 1888: 195 *w*), adult, sex unknown, relaxed mount and skull. Loc.: Intérieur de la Cafrerie [South Africa]. Leg.: Verreaux.

Miniopterus paululus witkampi Sody, 1930

Miniopterus witkampi Sody, 1930: 272.

Holotype, RMNH.MAM.29781, adult male, skin and skull. Loc.: Lobang Ipoe, Kutei, Borneo, Indonesia. Leg.: H.J.V. Sody, 24 January 1928 (422).
Paratypes: RMNH.MAM.29785, 29869–29872, 29878–29884, 29917–29921, 29923–29924.

Sody (1930) gave measurements based on “about 15” specimens in his collection of this new species.

Miniopterus schreibersii Natterer, 1817

Vespertilio orsinii Temminck, 1840: 179 (emendation).

In our opinion Temminck (1840) had no intention to publish a new name, he merely corrected the error in spelling in *Vespertilio ursinii* by Bonaparte (1837: 106). Therefore both names refer to the same type(s) and type locality (Monte Corno, Italy).

Murina suilla suilla (Temminck, 1840)

Vespertilio suillus Temminck, 1840: 224, pl. LVI figs 4–6.

Syntype, RMNH.MAM.35770 (Jentink 1887: 280 *b*; 1888: 185 *b*), sex unknown, mounted skin and skull (formerly RMNH.MAM.35772). Loc.: Tapos [Tapus] at the foot of Mt Pangrango, Java, [Indonesia]. Leg.: H. Boie, [July–August 1827].
Syntype, RMNH.MAM.35771 (Jentink 1888: 185 *c*), sex unknown, mounted skin, skull in situ. Loc.: Tapus, Java [Indonesia]. Leg.: H. Boie, [July–August 1827].

According to Temminck (1840: 225) Naturalis received two specimens from Java and one from Sumatra. The Sumatran specimen is no longer present in Naturalis. Temminck did not mention or figure any skulls. According to Tate (1940: 9) skull RMNH.MAM.35772 belongs with skin RMNH.MAM.35770. This must be correct, though Jentink (1887; 1888) has catalogued skin and skull separately. Neither skin is recognizable from Temminck's pl. LVI.

Boie collected at Tapus between 4 July and 23 August 1827 (Boie 1833: 495; Susanna 1834: 282; Veth 1879: 52).

Murina suilla canescens Thomas, 1923

Murina canescens Thomas, 1923a: 254.

Paratype, ZMA.MAM.17352, male, alcohol. Loc.: Nias, Indonesia. Leg.: J.P. Kleiweg de Zwaan, 1910.

The holotype is in the NHM (NHMUK 23.1.2.28).

Neoromicia capensis (A. Smith, 1829)

Vespertilio minuta Temminck, 1840: 209 (nec Montagu, 1808).

Syntype, RMNH.MAM.35894 (Jentink 1887: 275 *a*; 1888: 174 *a*), adult, sex unknown, mounted skin and skull. Loc.: Cap, South Africa. Leg.: H.B. van Horstok, [1826–1834].
Syntype, RMNH.MAM.35895 (Jentink 1887: 275 *b*; 1888: 174 *b*), juvenile, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Cap, South Africa. Leg.: H.B. van Horstok, [1826–1834].

This name by Temminck (1840) is pre-occupied by *Vespertilio minutus* Montagu, 1808, which is a synonym for *Rhinolophus hipposideros* (Bechstein, 1800). The taxonomic history of *V. minuta* is confusing, see Kearney et al. (2008) and under *Eptesicus hottentotus*.

In the original manuscript by Smeenk of this catalogue these specimens were mentioned as (para)lectotype, however we haven't found any references confirming this. We therefore list RMNH.MAM.35894 and 35895 as syntypes.

Neoromicia nanus stampflii (Jentink, 1888)

Vesperugo stampflii Jentink, 1888a: 54.

Holotype by monotypy, RMNH.MAM.17836 (Jentink 1888: 181 *a*), adult male, alcohol and skull. Loc.: Farmington-River, Liberia. Leg.: F.X. Stampfli, July 1887.

Nyctalus aviator Thomas, 1911

Vespertilio molossus Temminck, 1840: 269.
Nyctalus aviator Thomas, 1911a: 380 (nomen novum)

Syntype, RMNH.MAM.35561 (Jentink 1887: 276 *b*; 1888: 177 *a*), adult male, mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.35562 (Jentink 1888: 177 *b*), adult male, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.35563 (Jentink 1888: 177 *c*), adult male, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.35565 (Jentink 1887: 276 *c*), adult, skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.35566 (Jentink 1887: 276 *a*), adult, skeleton. Loc.: Japan. Leg.: H. Bürger, [1829–1834].

Thomas (1911a: 379) discussed the taxonomic status of the large bats from Japan, originally described by Temminck (1840) as *Vespertilio molossus*. This name is preoccupied by *Vespertilio molossus* Pallas, 1767. Dobson (1878: 214) introduced the name *Nyctalus lasiopterus*, based on a plate by Von Schreber and a specimen in the NHM. This specimen however, turns out to be from Italy and *Nyctalus lasiopterus* Dobson, 1878 is thus applied to the European form, making it necessary to assign a new name to the Japanese species. In our opinion and after consulting Van Tol (in lit.) we conclude that Thomas (1911a) introduced *Nyctalus aviator* as a nomen novum for *Vespertilio molossus* Temminck, 1840 and the type series therefore is the same for both names. The type Thomas selected in the NHM (NHMUK 5.1.4.5) in his description has consequently no typestatus.

Nycticeius aenobarbus (Temminck, 1840)

Vespertilio aenobarbus Temminck, 1840: 247.

Holotype by monotypy, RMNH.MAM.17623 (Jentink 1887: 279 *a*; 1888: 184 *a*), adult female, mounted skin and skull. Loc.: Amérique septentrionale, [South America].

According to Temminck (1840) the origin of the holotype is inferred based on other material in the collection with which it was acquired, but is uncertain.

Nyctophilus geoffroyi geoffroyi Leach, 1821

Nyctophilus geoffroyi Leach, 1821: 78.

Holotype by monotypy, RMNH.MAM.17985 (Jentink 1887: 274 *b*; 1888: 172 *b*), juvenile, sex unknown, mounted skin and skull. Loc.: Australia. Ex: Brookes Museum.

This is the specimen listed in the sales catalogue of the museum of Brookes (1828: 26, item 12) under this name and with a remark by Brookes confirming its status as the single type. See also Temminck (1835c) for the history of this specimen.

Tomes (1858) restricted the type locality to Albany, Western Australia.

Nyctophilus geoffroyi pacificus J.E. Gray, 1831.

Nyctophilus unicolor Tomes, 1858: 33.

According to Parnaby and Helgen (2023) Naturalis holds a syntype for *Nyctophilus unicolor* Tomes, 1858; we have not been able to locate this specimen and it is not listed in Jentink (1887; 1888).

Perimyotis subflavus (F. Cuvier, 1832)

Vespertilio erythrodactylus Temminck, 1840: 238.

Syntype, RMNH.MAM.25696 (Jentink 1887: 278 *a*; 1888: 181 *a*), adult, sex unknown, mounted skin and skull. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25697 (Jentink 1887: 278 *b*; 1888: 181 *b*), juvenile, sex unknown, mounted skin and skull. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25698 (Jentink 1887: 278 *c*; 1888: 181 *c*), juvenile, sex unknown, mounted skin and skull. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25699 (Jentink 1888: 181 *d*), adult, sex unknown, mounted skin, skull in situ. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25700 (Jentink 1888: 181 *e*), adult, sex unknown, mounted skin, skull in situ. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].
Syntype, RMNH.MAM.25701 (Jentink 1888: 181 *f*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Philadelphia, U.S.A. Leg.: C.L. Bonaparte [1822–1826].

Philetor brachypterus (Temminck, 1840)

Vespertilio brachypterus Temminck, 1840: 215.

Holotype by monotypy, RMNH.MAM.35155 (Jentink 1887: 277 *a*; 1888: 178 *a*), adult male, mounted skin and skull. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller [1833–1835]

See Hill (1971) for a full description of the type and status of *Vespertilio brachypterus* Temminck, 1840.

Pipistrellus abramus (Temminck, 1840)

Vesperugo abramus Temminck, 1840: 232.

Syntype, RMNH.MAM.33644 (Jentink 1887: 278 *c*; 1888: 180 *c*), juvenile male, mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.33645 (Jentink 1887: 278 *b*; 1888: 180 *d*), adult male, mounted skin and skull. Loc.: Nagasaki, Japan. Leg.: Ph.F. von Siebold [1823–1829].
Syntype, RMNH.MAM.33646 (Jentink 1888: 180 *e*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.33647 (Jentink 1888: 180 *f*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.33648 (Jentink 1888: 180 *g*), adult male, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.33649 (Jentink 1888: 180 *h*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].

In his original description Temminck (1840: 232) only referred to specimens collected by Siebold. Only RMNH.MAM.33645 can with certainty be attributed to this collector and is the only type listed in Jentink (1888: 180) for this species. However, in the text following this description, under *Vespertilio akokomuli* (Temminck 1840: 234; see below), he mentioned: "trouvée comme les précédentes en Japon, par mr. mr. de Siebold et Bürger". Therefore we have also included the specimens received from Bürger in the type series.

Vespertilio akokomuli Temminck, 1840: 233.

Syntype, RMNH.MAM.19499 (Jentink 1888: 180 *o*), adult male, alcohol. Loc.: Japan.
Syntype, RMNH.MAM.19500 (Jentink 1888: 180 *p*), adult, male, alcohol. Loc.: Japan.
Syntype, RMNH.MAM.19501 (Jentink 1888: 180 *q*), adult, sex unknown, alcohol. Loc.: Japan.
Syntype, RMNH.MAM.35474 (Jentink 1887: 278 *b*; 1888: 180 *b*), adult, sex unknown, mounted skin and skull. Loc.: “Nagasaki”, Japan. Leg.: Ph.F. von Siebold [1823–1829].
Syntype, RMNH.MAM.39040 (Jentink 1888: 180 *r*), adult male, alcohol. Loc.: Japan.

In his original description Temminck (1840) only referred to specimens received from Siebold and Bürger. Only RMNH.MAM.35474 is attributed to one of these collectors, however the other specimens are listed by Jentink (1888: 180) as types, we follow this. Turni and Kock (2008: 55) listed two syntypes (ZMB 2568a–b) in the MfN.

Pipistrellus hesperidus (Temminck, 1840)

Vespertilio hesperida Temminck, 1840: 211.

In the original description Temminck (1840) referred to specimens in Naturalis and the SMF collected by Rüppell from the coast of Abyssinia and the Red Sea. No specimens could be found in Naturalis. The lectotype, a specimen in the SMF (SMF 12381) was designated by Kock (2001: 279), although this specimen is said to originate from Shoa, Abyssinia.

Vespertilio platycephalus Temminck in Smuts, 1832: 107.

In the original description Temminck (in Smuts 1832) mentioned three specimens collected by Van Horstok in the Cape, South Africa. These are no longer present in Naturalis.

Pipistrellus javanicus (Gray, 1838)

Pipistrellus tralatitius bancanus Sody, 1937: 233.

> Holotype, RMNH.MAM.30931, adult female, skin and skull. Loc.: Banka, Indonesia. Leg.: W.C. van Oosterhout, [May–September] 1931. Ex: H.J.V. Sody (Bk 39).
> Paratypes: RMNH.MAM.30932–30940.

Sody (1937) examined eleven specimens for his description.

Pipistrellus pipistrellus (Schreber, 1774)

Vespertilio lacteus Temminck, 1840: 245.

> Syntype, RMNH.MAM.17624 (Jentink 1887: 277 *h*; Jentink 1888: 178 *a*), juvenile, sex unknown, relaxed mount and skull. Loc.: Amerique meridionale? [= error].

Temminck (1840) assumed that this new species is from North America ("Amerique meridionale"), based on the collection these specimens were part of. As the only remaining specimen in Naturalis is clearly a *Pipistrellus pipistrellus* and according to Dobson (1878) agrees with specimens from Turkestan, this locality must be erroneous. Based on Dobson's identification the name *lacteus* has either been used as senior synonym of *alladin* and *bactrianus* (Thomas 1909) or as the valid name for the populations of Turkestan (Saturnin 1914; Thomas 1909; Bianki 1917). Ognev (1927: 150) however proposed to maintain the name *bactrianus* for this taxon because of the erroneous type locality given by Temminck and this opinion was followed by most subsequent authors; see Benda et al. (2011: 194) who proposed to treat *Vesperilio lacteus* Temminck, 1840 as a nomen dubium.

Only one of the two specimens mentioned by Temminck is listed by Jentink (1887; 1888) and is still present in Naturalis.

Pipistrellus tenuis tenuis (Temminck, 1840)

Vespertilio tenuis Temminck, 1840: 229.

Lectotype, RMNH.MAM.33651 (Jentink 1888: 179 *b*), adult male, mounted skin and skull. Loc.: [West] Sumatra, Indonesia. Leg.: S. Müller [1833–1835].
Paralectotypes: RMNH.MAM.33650 (= *Myotis hasseltii macellus*), 35411 (= *Myotis muricola*).

Tate (1942: 242) examined the types in Naturalis in 1937 and designated RMNH.MAM.33651 the lectotype. Specimen RMNH.MAM.35411 has been identified as *Myotis muricola* Hodgson, 1846, the other paralectotype (RMNH.MAM.33650) is a specimen of *Myotis hasseltii macellus* Temminck, 1840. The date 1836 given by Jentink (1888: 190) with RMNH.MAM.35411 must be the date the specimen arrived in Leiden, as Müller left Sumatra in 1835.

Turni and Kock (2008: 64) listed another syntype (ZMB 2643), which should be a paralectotype, in the MfN. According to Tate (1942) there are two other types in the NHM (NHMUK 1907.1.1.407–408), not listed as such in the NHM online database.

Pipistrellus tenuis sewelanus Oei, 1960

Pipisterellus sewelanus Oei, 1960: 27.

Holotype, ZMA.MAM.1565, female, skin and skull in alcohol. Loc.: Sewela [= Suela], Lombok, Indonesia. Leg.: J.P. Kleiweg de Zwaan, March 1939.
Paratypes: ZMA.MAM.1566–1568.

Scotophilus borbonicus (É. Geoffroy Saint-Hilaire, 1803)

Vespertilio borbonicus É. Geoffroy Saint-Hilaire, 1803: 55.

Lectotype, RMNH.MAM.28508 (Jentink 1888: 184 *c*), sex unknown, damaged relaxed mount and incomplete skull. Loc.: Ile de Bourbon [Réunion]. Leg.: J. Macé [1789–1803]. Ex: [MNHN].

É. Geoffroy Saint-Hilaire (1803: 55) mentioned two specimens of this new species in the MNHN (nrs CXXII and CXXIII) collected in Bourbon (Réunion) Island and received from Macé. One of these, apparently nr CXXII with two incisors in the upper jaw, must have been sent to Leiden University in 1815, together with a number of other duplicates from the MNHN (Gijzen 1938: 26), since Temminck (1840: 153) also attributed the species to Macé. Temminck's figure of the head (pl. XLVII fig. 7) is copied from É. Geoffroy Saint-Hilaire (1806: pl. 46).

The lectotype was designated by Hill (1980: 289–290), who discussed its probable history. Goodman et al. (2020) concluded that the Macé material was

probably not from Réunion and is conspecific with *S. trujillo,* as no specimens of this species have been found on Réunion, morphological characteristics fall within the range of several east African species and molecular analysis indicates nesting within the *S. trujillo* clade. For this reason they proposed to consider *S. borbonicus* a nomen dubium.

Macé collected between 1789–1803, mainly in India, but stayed from 1789 until 1792 in South Africa, then proceeded to Mauritius where he stayed until 1798. He might have visited Madagascar in this period, but no records have been found to confirm this. Only a part of his collections (mainly from India, as his material from Mauritius was looted by rioters) made it back to France in 1801. In this collection specimens from Madagascar are present, probably purchased (see also Hill 1980).

Scotophilus celebensis (Sody, 1928)

Pachyotis temmincki celebensis Sody, 1928: 90.

Holotype, RMNH.MAM.29953, adult female, alcohol and skull. Loc.: Toli-Toli, Sulawesi, Indonesia. Leg.: H. Fruhstorfer, June 1903.
Paratypes: RMNH.MAM.29952, 29954.

Scotophilus collinus Sody, 1936

Scotophilus temmincki collinus Sody, 1936: 48.

Holotype, RMNH.MAM.29842, adult female, skin and skull. Loc.: Djembrana [Jembrana], Bali, Indonesia. Leg.: H.J.V. Sody, 21 August 1930 (E 213).
Paratypes: RMNH.MAM.29840, 29841, 29843.

Sody (1936) examined six specimens from Bali and a large series from East Java for his description; of these, four specimens from Bali are housed in Naturalis. He restricted the type locality of *Scotophilus temmincki temmincki* Horsfield, 1824 (now included in monotypic *Scotophilus kuhlii*) to West Java.

Scotophilus dinganii (A. Smith, 1833)

Vespertilio epichrysus Temminck in Smuts, 1832: 106.

Temminck (1832) referred to specimens from the Cape collected by Van Horstok. In a later publication Temminck (1840: 208) mentioned specimens collected by Boie and Van Horstok. We have not found any specimens in the collection that agree with this information.

Vespertilio epichrysus Temminck, 1832 predates *Scotophilus dinganii* (Smith, 1833). Smith (1833: 59) gave no indication of the specimens available to him. Sundevall (1846), probably unaware of the publication by Smith (1833), published this same name as a new species, based on specimens collected by Wahlberg

under this name. As Wahlberg only arrived in South Africa in February 1839, his material cannot be part of the original type series for *S. dinganii* (A. Smith, 1833), for which no types are known. A specimen in the NHRM (NHRM 1064) has been designated the neotype for *S. dinganii* (A. Smith, 1833) by Robbins et al. (1985: 65). This specimen is erroneously referred to as lectotype by Van Cakenberghe and Vallo (2017: 7).

Scotophilus kuhlii **Leach 1821**

Scotophilus castaneus solutatus Sody, 1936: 49.

Holotype, RMNH.MAM.29827, adult female, skin and skull. Loc.: Tjandiroto, Java, Indonesia. Leg.: H.J.V. Sody, 12 June 1929 (B.16).
Paratypes: RMNH.MAM.29826, 29828.

Scotophilus leucogaster leucogaster **(Cretzschmar, 1826)**

Nycticejus leucogaster Cretzschmar, 1826: 71.

Paralectotype, RMNH.MAM.27432 (Jentink 1888: 184 *a*), adult, female [?], mounted skin and skull. Loc.: Kordofan, Sudan. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 22) designated a specimen in the SMF (SMF 4309) the lectotype.

Tylonycteris pachypus pachypus **(Temminck, 1840)**

Vespertilio pachypus Temminck, 1840: 217.

Syntype, RMNH.MAM.35241 (Jentink 1888: 176 *a*), adult, sex unknown, mounted skin, skull in situ. Loc.: Bantam District, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35242 (Jentink 1888: 176 *b*), juvenile, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Bantam, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35243 (Jentink 1888: 176 *c*), juvenile, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Bantam, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35245 (Jentink 1887: 276 *a*), adult, sex unknown, skeleton. Loc.: Bantam, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].
Syntype, RMNH.MAM.35246 (Jentink 1887: 276 *b*), juvenile, sex unknown, skeleton. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].
Syntype, RMNH.MAM.35247 (Jentink 1887: 276 *c*), juvenile, sex unknown, skeleton. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].
Syntype, RMNH.MAM.35248 (Jentink 1887: 276 *d*), adult, sex unknown, skull. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].
Syntype, RMNH.MAM.35249 (Jentink 1887: 276 *e*), adult, sex unknown, skull. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].

Syntype, RMNH.MAM.35250 (Jentink 1887: 276 *f*), adult, sex unknown, skull. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].
Syntype, RMNH.MAM.35251 (Jentink 1887: 276 *g*), subadult, sex unknown, skull. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].
Syntype, RMNH.MAM.35252 (Jentink 1887: 276 *h*), juvenile, sex unknown, skull. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].
Syntype, RMNH.MAM.39049 (Jentink 1888: 176 *e*), adult female, alcohol. Loc.: Bantam, Java, Indonesia. Leg.: J.C. van Hasselt [January 1821–September 1823].

Tate (1940: 9) described the type series as consisting of eight specimens, all collected by Van Hasselt in Bantam. He also mentioned a syntype in NHM (NHMUK 1844.4.4.224) and assumed that the cat. d number associated with this specimen refers to Jentink's catalogue (Jentink 1887: 276). This is unlikely as this catalogue is of a much later date than the accession of the specimen in the NHM (1844). Turni and Kock (2008: 61) listed four syntypes (ZMB 2569a–d) in the MfN.

Tylonycteris pachypus bhaktii Oei, 1960

Tylonycteris pachypus bhaktii Oei, 1960: 25.

Holotype, ZMA.MAM.2876, female, skin and skull in alcohol. Loc.: Sewela [Suela], Lombok, Indonesia. Leg.: J.P. Kleiweg de Zwaan, March 1939.
Paratypes: ZMA.MAM.2877, 2878.

Vansonia rueppellii (J. Fischer, 1829)

Vespertilio Temminckii Cretzschmar, 1826: 17.
V[espertilio]. Rüppelii Fischer, 1829: 109 (nomen novum).

Syntype, RMNH.MAM.35913 (Jentink 1887: 278 *b*; 1888: 181 *b*), adult female, mounted skin and skull. Loc.: Dongola, Sudan. Leg.: W.P.E.S. Rüppell, [1824].
Syntype, RMNH.MAM.35914 (Jentink 1888: 181 *a*), adult male, mounted skin, skull in situ. Loc.: Dongola, Sudan. Leg.: W.P.E.S. Rüppell, [1824].

Mertens (1925: 22) designated a specimen in the SMF the lectotype (SMF 4308). However, the seven specimens Cretzschmar received from Rüppell (Cretzschmar 1826) are from Dongola and he did not mention Shendi, the place of origin of the lectotype in the SMF. The SMF specimen is therefore not part of the type series and we consider this lectotypification invalid (ICZN art. 74.2). For the year of collection we follow Mertens (1925).

Fischer (1829) introduced his new name for *Pipistrellus temminckii* Cretzschmar, 1826 without providing a reason.

Incertae sedis

Vespertilio australis Dobson, 1878: 317.

Holotype, RMNH.MAM.19631 (Jentink 1887: 283 *a*; 1888: 191 *a*), adult, sex unknown, relaxed mount and skull. Loc.: Sydney, Australia.

This species is only known from the type specimen. This species was still listed as *Myotis australis* in Wilson and Reeder (2005: 502), however Moratelli et al. (2020) and Burgin et al. (2020) no longer list this species.

PHOLIDOTA Weber, 1904

Manidae Gray, 1821

Manis pentadactyla aurita Hodgson, 1836

Manis Auritus Hodgson, 1836: 234.

Syntype, RMNH.MAM.63820 (Jentink 1888: 217 *b*), adult, mounted skin, skull extracted but not in collection. Loc.: Nepal. Leg.: B.H. Hodgson.
Syntype, RMNH.MAM.63821 (Jentink 1888: 217 *c*), subadult, mounted skin, skull extracted but not in collection. Loc.: Nepal. Leg.: B.H. Hodgson.
Syntype, RMNH.MAM.63822 (Jentink 1888: 217 *d*), subadult, mounted skin, skull extracted but not in collection. Loc.: Nepal. Leg.: B.H. Hodgson.
Syntype, RMNH.MAM.63823 (Jentink 1888: 217 *e*), subadult, mounted skin missing, skull extracted but not in collection. Loc.: Nepal. Leg.: B.H. Hodgson.

Koju et al. (2025), based on molecular and morphological data, established *Manis aurita* Hodgson, 1836 as a distinct species. They also examined the type specimen in the NHM (NHMUK.1843.1.12.85), which is listed in the online dataportal as the holotype (https://data.nhm.ac.uk/object/ca7e37f0-c3e4-4bf5-b715-9a9fc83998a5/1760005475174). As Hodgson (1836) gave no indication of the number of specimens available to him, we consider this to be a syntype.

Smutsia temminckii Smuts, 1832

Manis temminckii Smuts, 1832: 54.

Holotype by monotypy, RMNH.MAM.39311 (Jentink 1887: 298 *a*; 1888: 217 b) adult, sex unknown, mounted skeleton. Loc.: Pays des Masilikats, Lataku, [South Africa]. leg.: H.B. van Horstock

Smuts (1832) described this specimen based on the skeleton of one specimen.

CARNIVORA Bowdich, 1821

Felidae Fischer de Waldheim, 1817

Caracal aurata aurata (Temminck, 1825)

Felis aurata Temminck, 1825a: 120.
Felis chrysothrix Temminck, 1827: 251 (nomen novum).
Felis chrysothrix var. rubra “Schlegel” Jentink, 1892: 102 (nomen nudum).

> Holotype by monotypy, RMNH.MAM.19633 (Jentink 1892: 102 *d*), adult, sex unknown, mounted skin, skull extracted but not in collection. Ex: Cabinet Temminck.

Temminck (1825a) published *Felis aurata* in the fourth of a series of seven monographs. These seven issues make up volume one which was completed in 1827. However, the fourth part was published in 1825 and therefore the correct citation for this name should be 1825 and not 1827 as it is generally cited (Wilson and Reeder 2005: 544; Sunquist and Sunquist 2020: 398). See also Kitchener et al. (2022).

After having published his *Felis aurata* in 1825, Temminck (1827) introduced the new name *Felis chrysothrix* for this species in the additions and corrections at the end of the first volume of his Monographies de mammalogie.

Jentink (1892) published *Felis chrysothrix var. rubra* in the synonymy of *Felis chrysothrix* (= *Felis aurata*). We have not been able to find any publication of this name by Schlegel or any subsequent use as a valid name; therefore this name is not available.

Caracal aurata celidogaster (Temminck, 1825)

Felis celidogaster Temminck, 1825a: 140.

> Holotype by monotypy, RMNH.MAM.19632 (Jentink 1892: 102 c), adult, mounted skin, skull in situ. Loc.: [Dabocrom, Ghana]. Ex Bullock Museum, 1819.

See *Felis aurata* above for discussion on the publication date. According to Temminck (1825a) this specimen was said to have originated from Chili or Peru, later corrected by him (Temminck 1853: 88) to “la côte de Guiné”. See Kitchener et al. (2017) for a discussion on the type locality.

Felis bieti Milne-Edwards, 1892

Felis pallida subpallida Jacobi, 1923: 9.

> Syntype, RMNH.MAM.4585, sex unknown, flat skin. Loc.: Songpan, Sichuan, China. Leg.: H. Weigold, July 1914, expedition W. Stötzner.

RMNH.MAM.4585 is referred to by Jacobi (1923: 10) as “type *a*”.

Felis catus (Linnaeus, 1758)

Felis megalotis Müller, 1839: 8.

Holotype by monotypy, RMNH.MAM.39211 (Jentink 1887: 87 *a*; 1892: 106 *a*), subadult female, mounted skin and skull. Loc.: [Pritti = Pariti], Timor, Indonesia. Leg.: S. Müller [November–December 1828].

Müller (1842: 158) described that during his stay at Pariti in November–December 1828 a single specimen of this cat was caught.

Felis lybica cafra Desmarest, 1822

Felis caligata Temminck, 1825a: 123.

Possible syntype, RMNH.MAM.39209 (Jentink 1892: 105 *c*), adult male, mounted skin skull extracted but not in collection. Loc.: Cape, [South Africa]. Leg.: H.B. van Horstok?, Brehm?
Possible syntype, RMNH.MAM.63824 (Jentink 1892: 105 *d*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Cap, [South Africa]. Leg.: H.B. van Horstok?
Possible syntype, RMNH.MAM.63825 (Jentink 1892: 105 *e*), juvenile male, mounted skin, skull extracted but not in collection. Loc.: Cap, [South Africa].

Temminck (1825a) referred to a series of specimens in Naturalis. He specified a large specimen from Algoa bay, and a young male collected by Lalande, but none of these can be found with certainty in Naturalis. Furthermore he referred to specimens in MNHN by Duvaucel from India (MNHN-ZM-2011-169), Diard from Vietnam (MNHN-ZM-2011-163) and by Delalande from South Africa (probably MNHN-ZM-MO-2001-322, but not listed as type for *caligata* in the MNHN).

Jentink (1887; 1892) did not list any types and his information does not always agree with the labels. RMNH.MAM.39209 is listed in Jentink (1892: 105) as from Algoa Bay, supposedly collected by Van Horstok and donated by Brehm. However the oldest label and writing on the stand in Temminck's hand give Cape as origin and only Brehm. There are at least two correspondents named Brehm who supplied material to Temminck and Naturalis. There is a Brehm who apparently died before Van Horstok took over as supplier (Gijzen 1938: 104), but there is also a L. Brehm, who sent vertebrates to Leiden in the years 1821 until 1830 (Gijzen 1938: 304).

All three specimens listed above bear labels in Temminck's hand identifying them as *F. caligata* and are all from the Cape. However the label (probably by Jentink) with RMNH.MAM.63824 identifies it (correctly) as an unsexed juvenile, while in Jentink (1892: 105) it is listed as an adult male collected by Van Horstok on 23 October 1828.

Felis lybica lybica Forster, 1780

Felis maniculata Temminck, 1825a: 128.

Temminck (1825a) based his description on an adult female in the SMF (see Cretzschmar 1826: pl. 1). Mertens (1925: 28) unnecessarily designated this specimen

(SMF 4333) the lectotype, as this is a clear case of holotype by monotypy.

According to Sherborn (1922: cxxii) this publication appeared in 1825. See also Kitchener et al. (2022).

Felis silvestris Schreber, 1777

Felis torquata F. Cuvier, 1826: plate XXIX.

Syntype, RMNH.MAM.39217 (Jentink 1892: 105 *a*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Nepal. leg.: A. Duvaucel. Ex: MNHN, March 1825.

According to Jentink (1892: 105) this specimen was collected by A. Duvaucel, who died in India in 1824. So the date given must be the date the specimen entered the Naturalis collection. It is doubtful if Duvaucel visited Nepal himself, but he was in close contact with Hodgson, who might have been the source of this specimen.

Neofelis diardi diardi (G. Cuvier, 1823)

felis [sic] Diardi G. Cuvier, 1823: 437.

Neotype, RMNH.MAM.1981, male, mounted skin and skull. Loc.: [Surroundings of Palembang], Sumatra, Indonesia. Ex: Rotterdam Zoo, 29 July 1931.

Cuvier (1823) described this species from a specimen and a drawing by Diard and Duvaucel, supposedly from Java. However, P.-M. Diard and A. Duvaucel collected in Sumatra during 1818 and 1819, from where they sent material to the MNHN (Veth 1879: 57; Fransen et al. 1997: 228). Since this specimen apparently is lost, Christiansen (2009: 60) designated RMNH.MAM.1981 the neotype of *Neofelis diardi* (Cuvier, 1823).

The label gives as origin of the neotype Sumatra only; Christiansen, who consulted copies of the archives of Rotterdam Zoo, stated that the animal was captured in the vicinity of Palembang and was subsequently shipped to Rotterdam Zoo in The Netherlands, where it died 29 July 1931. Consequently, he restricted the type locality to Palembang, though the exact locality where the animal was caught is not documented.

Leopardus geoffroyi (d'Orbigny and Gervais, 1844)

Felis micrura "Temminck" Jentink, 1892: 101 (nomen nudum).

Jentink (1892) published this manuscript name by Temminck in the synonymy of *Leopardus geoffroyi* without providing a formal description. We have not found any subsequent use to validate this publication and therefore this name is not available and RMNH.MAM.63828 (Jentink 1892: 101 cat *a*) is not a type.

Leopardus wiedii wiedii (Schinz, 1821)

Felis wiedii Schinz, 1821: 235.
Felis macroura Wied, 1821: 204.

> Lectotype, RMNH.MAM.17696 (Jentink 1892: 100 *b*), adult female, mounted skin, skull in situ. Loc.: [Morro d' Arara, Rio Mucuri, Bahia], Brazil. Leg.: M. zu Wied [1815–1817].

De Avila-Pires (1965: 13–14) designated the lectotype for both names, but apparently was either under the impression that two specimens were involved, or 17695 is an error for RMNH.MAM.17696. Only RMNH.MAM.17696 belongs to *Leopardus wiedii*; RMNH.MAM.17695 is a *Leopardus tigrina* collected by Natterer, so cannot be part of the type series. Formally, RMNH.MAM.17696 is the lectotype for *macroura* Wied, 1822 and syntype for *wiedii* Schinz, 1821. However, we consider the listing of RMNH.MAM.17695 as an error and list RMNH.MAM.17696 as lectotype for both names.

Felis elegans Lesson, 1830: 69.

> Syntype, RMNH.MAM.39210 (Jentink 1892: 100 *b*), adult, mounted skin, skull in situ. Loc.: Brazil. Ex: MNHN.

We follow Jentink (1892: 100) who listed this specimen as type for *Felis elegans* Lesson, 1830. This was probably based on the information on the stand by Temminck. According to Lesson (1830), his type material was collected by Perrault and there is no mention of this collector on the label or stand.

Lynx lynx lynx (Linnaeus, 1758)

Felis cervaria Temminck, 1825a: 106.

> Syntype, RMNH.MAM.25519 (Jentink 1892: 107 *b*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: 'Russie asiatique'.
> Syntype, RMNH.MAM.25520 (Jentink 1892: 107 *a*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: 'Russie asiatique'.
> Syntype, RMNH.MAM.25521 (Jentink 1892: 107 *c*), subadult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: 'Russie asiatique'.

These skins were all acquired from the fur trade in Moscow. See *Caracal aurata* for the publication date of this name. In the original manuscript of this catalogue Smeenk referred to RMNH.MAM.25520 as the lectotype. We have however not been able to find any lectotype designation.

Lynx pardinus (Temminck, 1825)

Felis pardina Temminck, 1825a: 116.

Syntype, RMNH.MAM.63829 (Jentink 1892: 107 *c*), subadult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Spain.

Temminck (1825a) based his description on skins from the fur trade, a specimen shot in 1818 in Portugal housed in the MNHN and on mounted specimens in the MNHN and Naturalis. Almaça (1992b) identified the specimen collected in 1818 and referred to it as the holotype, which is incorrect as Temminck mentioned more than one specimen in his description. This is also not a valid lectotype designation (ICZN art. 74.6) and we list RMNH.MAM.63829 as a syntype. For the correct date of publication see *Profelis aurata*.

Jentink (1892) listed no specimens as type, but gave *Felis pardina* as synonym to his cat. *c* of *Lynx lynx*.

Panthera pardus orientalis Schlegel, 1857

Felis orientalis Schlegel, 1857a: 23.

Lectotype, RMNH.MAM.59135 (Jentink 1892: 98 *c*), sex unknown, mounted skin, skull extracted but not in collection. Loc.: Korea. Leg.: P.F.B. von Sieboldt.

Schlegel (1875a) applied this new name to the Leopards from Korea. By referring to this specimen as the type, Brongersma (1935: 69) designated it the lectotype.

Panthera tigris tigris (Linnaeus, 1758)

Felis tigris altaicus Temminck, 1844: 43.

Lectotype, RMNH.MAM.63712 (Jentink 1892: 96 *f*), subadult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Korea. Leg.: P.F.B. von Siebold [1823–1829].

By referring to this specimen as the type, Brongersma (1935: 69) designated it the lectotype.

Panthera tigris sondaica (Temminck, 1844)

Felis tigris sondaicus Temminck, 1844: 43.

Lectotype, RMNH.MAM.39216 (Jentink 1892: 96 *c*), female, mounted skin, skull extracted but not in collection. Loc.: West Java, Indonesia. Leg.: G. van Raalten, [1821–1824].
Paralectotypes: RMNH.MAM.43484, 43485, 45099; 17655, 43493, 64149 (= *F. t. sumatrae*).

Temminck (1844) did not specify the material he had before him and did not limit the range of this subspecies to Java. However, in an earlier publication Temminck (1836: xxi) stated that the characters of this form are the most developed in Java. Therefore, Brongersma (1935: 65–66) restricted the type locality of *Pantera tigris sondaica* to Java and only regarded the skin from Java as the type, thereby designating it the lectotype of this subspecies.

Jentink (1892: 96) did not list the Naturalis specimens as types, but it is clear that also the material from Sumatra was present in Naturalis at the time Temminck wrote the mammal section of the Fauna Japonica. Jentink (1892) gave Kuhl, Van Hasselt and Van Raalten as the collectors of RMNH.MAM.39216. These first members of the Natuurkundige Commissie voor Nederlandsch Indië arrived on Java in December 1820. Kuhl died on 14 September 1821, Van Hasselt on 8 September 1823 and finally Van Raalten in 1829. Nearly all this material is labelled “Kuhl and Van Hasselt”, but the oldest label of RMNH.MAM.39216, written in Temminck’s days, specifies “voy K & v. H. van Raalten”, which probably means that Van Raalten collected this animal himself. It must have arrived in Leiden with the 1824 shipment (despite a hand-written addition in Jentink’s catalogue saying “Acq. Oct. 1826”), since Temminck (1825a: 89) already stated that Naturalis “possède aussi le squelette, plusieurs têtes et les dépouilles du sujets tués à Java.” The lectotype is the only Javan skin from those days still present in Naturalis.

Prionailurus bengalensis bengalensis (Kerr, 1792)

Felis Nipalensis Hodgson, 1832b: 341.
Felis pardochrous Hodgson, 1844: 286 (nomen novum).

Syntype, RMNH.MAM.63830 (Jentink 1892: 103 *d*), sex unknown, mounted skin, skull in situ. Loc.: Nepal. Leg.: B.H. Hodgson.

In his first publication Hodgson(1832: 341) introduced the name *Felis Nipalensis*, which he later (Hodgson 1844: 286) renamed as *Felis pardochrous*.

Prionailurus bengalensis sumatranus (Horsfield, 1821)

Felis punctulata "Temminck" Elliot, 1882: pl. 10 (in synonymy).
Felis punctatula "Temminck" Grevé, 1895: 73 (incorrect subsequent spelling).

Elliot (1882) published this manuscript name by Temminck in the synonymy of his *Felis javensis* and gave a description of the specimen. Grevé (1895) published this manuscript name, also in the synonymy of *F. javensis*, as *Felis punctatula*. We have not been able to find any publication validating these names, therefore these names

are not available and RMNH.MAM.63833 (an adult male collected by Müller in Palembang Sumatera between July 1833 and end 1835) is not a type.

Prionailurus javanensis javanensis (Desmarest, 1816)

Felis minuta Temminck, 1825a: 81, 130 (nomen novum).

Temminck (1825a) introduced this new name for *Felis javanensis*, a name he attributed to Horsfield instead of Desmarest, 1816 (= *Prionailurus javanensis*). He considered this name inappropriate now that he merged this Javan form with *Felis sumatranus* Horsfield, 1821. The (holo)type for *Felis javanensis* Desmarest, 1816 in the MNHN (MNHN-ZM-MO-2001-326) is therefore also the type for *Felis minuta* Temminck, 1825. Desmarest (1816: 115) based his description on specimen(s) collected by Leschenault, so another specimen listed as syntype for *Felis minuta* in the MNHN online database (MNHN-ZM-MO-2001-327) collected by Filibert, is not part of the type series.

Jentink erroneously listed three specimens (RMNH.MAM.39212–39214) in Naturalis as types.

Prionailurus javanensis sumatranus (Horsfield, 1821)

Felis minuta var. borneoensis Jentink, 1892: 103 (nomen nudum).

Prionailurus bengalensis borneoensis Brongersma, 1935: 6.

> Holotype, RMNH.MAM.54957 (formerly 940), adult male, skin, skull extracted but not in collection. Loc.: Rantau, Borneo, Indonesia. Leg.: F.E.C. van Putten (126), 29 March 1916. Received 7 October 1919.
> Paratypes: RMNH.MAM.20696, 39215, 39218–39224, RMNH.MAM.63832, 54958, 54959.

The collecting date of 1877 for RMNH.MAM.39220 and 39221 must be the date when the material arrived in Leiden, as Teysmann stayed in West-Borneo in 1874. In 1877 he visited Sulawesi. Carl Bock stayed in Borneo from 16 July 1879 until 3 March 1880.

Prionailurus planiceps (Vigors & Horsfield, 1827)

Felis strepsilura "Diard" Jentink, 1887: 83 (in synonymy).

Jentink (1887) published this manuscript name by Diard in the synonymy of *Prionailurus planiceps*. We have not found any subsequent use to validate this name, therefore this is not an available name and RMNH.MAM.63834 (collected by Diard in Borneo) is not a type.

Prionailurus viverrinus viverrinus (Bennett, 1833)

Felis leucojalamus "Diard" Jentink, 1887: 83 (in synonymy).
Jentink published this manuscript name by Diard in the synonymy of *Prionailurus viverrinus*. We have not found any subsequent use to validate this publication. Therefore this is not an available name and RMNH.MAM.59688 (presumably collected by Diard in 1819 in Singapore, see also Jusoh et al. 2020) is not a type.

Prionailurus viverrinus rhizophoreus Sody, 1936

Prionailurus viverrinus rhizophoreus Sody, 1936: 45.

> Holotype, RMNH.MAM.33859, adult male, skin and skull. Loc.: Pamanoekan, W. Java, Java, Indonesia. Leg.: E.B. Mulder Jr, May 1932. Ex: H.J.V. Sody.
> Paratypes: RMNH.MAM.1701, 2310.

Viverridae Gray, 1821

Arctictis binturong (Raffles, 1822)

Arctictis binturong kerkhoveni Sody, 1936: 43.

> Holotype, RMNH.MAM.33739, adult male, skin and skull. Loc.: Banka, Indonesia. Leg.: W.C. van Oosterhout, 1931. Ex Sody (Bk 69).

Arctictis penicillatus Temminck, 1835b: 42.

> Syntype, RMNH.MAM.34466 (Jentink 1887: 96 *a*), adult, sex unknown, skeleton. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt [April 1816–June 1822].
> Syntype, RMNH.MAM.34473 (Jentink 1892: 118 *f*), adult male, mounted skin, skull extracted but not in collection. Loc.: Java, Indonesia. Leg.: C.L. Blume [1818–1826].
> Syntype, RMNH.MAM.34474 (Jentink 1892: 118 *g*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Java, Indonesia. Leg.: C.L. Blume [1818–1826].
> Syntype, RMNH.MAM.34475 (Jentink 1892: 118 *h*), adult male, mounted skin, skull extracted but not in collection. Loc.: Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt [December 1820–September 1821].

In our opinion the status of this name is doubtful. Temminck (1835b: 42) introduced this new name in a footnote without a description and referring to the *Tableau systématique des mammifères* (Temminck 1824a: xii). In the latter publication only the new genus name, *Arctictis*, is given, with a description and with the remark that this genus is monotypical, however a specific epithet is not provided. Later, Temminck (1841b: 310) again referred to his *Arctictis penicillatus* and placed it in the synonymy of *A. binturong.* Until recently *Arctitis binturong penicillatus* Temminck, 1835 was

considered a valid subspecies (Wilson and Reeder 2005: 549). We tentatively consider the name to be validly published and list as type material all the specimens available to Temminck in 1835.

Arctogalidia trivirgata trivirgata (Gray, 1832)

Paradoxurus trivirgatus "Reinwardt" Gray, 1832: 68.

Holotype, RMNH.MAM.34550 (Jentink 1887: 95 *a*; 1892: 117 *b*), adult male, mounted skin and skeleton. Loc.: Buitenzorg [Bogor][?], Java, Indonesia. Leg.: C.G.C. Reinwardt, 1821.

The origin of this specimen has been much debated. According to the original description by Gray (1832) the type originated from the "Moluccas". Later Temminck (1841b: 335) restricted this species to Java and Sumatra and correctly stated that this species does not occur in the Moluccas. Jentink (1887: 95) listed the holotype (attributing the name *trivirgatus* to Temminck) as originating from Bogor, Java. However, in 1821 Reinwardt mainly collected in the eastern part of the Indo-Australian Archipelago and in East Java. The possibility cannot be excluded that 1821 is the date of arrival in Naturalis and that it was collected before 1821, when Reinwardt travelled extensively through Java. However, Van Bemmel (1952: 26) noted that the type does not match other specimens from Java and agrees well with material from Malacca. Because of the uncertainty of the origin of the type we follow Van Bemmel (1952). If however the origin on the label ("captus propre Buitenzorg") is correct, the Javan form, currently listed as *Arctogalidia trivirgata trilineata* Wagner, 1841, should be the nominate and a new name should be given to the subspecies from Thailand, Malaysia, Sumatra and Borneo, currently named *Arctogalidia trivirgata trivirgata* Gray, 1832.

Arctogalidia trivirgata stigmatica (Temminck, 1853)

Paradoxurus stigmaticus Temminck, 1853: 120.

Holotype by monotypy, RMNH.MAM.34556 (Jentink 1892: 117 *a*), adult male, mounted skin, skull in situ. Loc.: Doesoen [Barito] River, Borneo, Indonesia. Leg.: C.A.L.M. Schwaner [1843–1848].

Cynogale bennettii Gray, 1837

Potamophilus barbatus Müller, 1838: 142.

Holotype by monotypy, RMNH.MAM.34460 (Jentink 1887: 97 *a*; 1892: 119 *a*), adult male, mounted skin and skeleton. Loc.: Mandawej [Mendawai] river near the beach, S. Borneo, Indonesia. Leg.: S. Müller, [28 July–17 December 1836].

Genetta felina (Thunberg, 1811)

Viverra felina Thunberg, 1811: 165.
Viverra macrura "Temminck" Jentink, 1892: 112 (in synonymy).

A specimen (RMNH.MAM.34572, from South Africa, collected by C.M. Villet. and acquired in 1823) was listed in the manuscript by Smeenk of this type catalogue as holotype for *Viverra felina*. However neither Thunberg (1811: 165) nor Jentink (1892: 112) made any reference to this specimen as being the type. Furthermore, the acquisition date, 1823, is long after the date of publication. Therefore RMNH.MAM.34572 cannot be a type. The provenance of this specimen is probably the collection of C.M. Villet, who in a letter dated 1822 offered mammals for sale (Naturalis archive inv. 6977).

Jentink (1892: 112) published the manuscript name *Viverra macrura* by Temminck in the synonymy of *Genetta felina* and we found no subsequent use to validate this name. Therefore this name is not available.

Genetta pardina I. Geoffroy Saint-Hilaire, 1832.

Viverra genettoides Temminck, 1853: 89.

Syntype, RMNH.MAM.34587 (Jentink 1892: 112 *a*), adult male, mounted skin and skull. Loc.: Rio Boutry, Côte d'Or [Ghana]. Leg.: H.S. Pel, 1845.
Syntype, RMNH.MAM.34588 (Jentink 1887: 92 *b*; 1892: 112 *b*), adult female, mounted skin and skull. Loc.: Rio Boutry, Côte d'Or [Ghana]. Leg.: H.S. Pel, September 1847.
Syntype, RMNH.MAM.34589 (Jentink 1887: 92 *c*; 1892: 112 *c*), adult female, mounted skin and skull. Loc.: Rio Boutry, Côte d'Or [Ghana]. Leg.: H.S. Pel, January 1841.
Syntype, RMNH.MAM.34590 (Jentink 1892: 113 *d*), adult male, mounted skin and skull. Loc.: St.George d'Elmina, Côte d'Or [Ghana]. Leg.: H.S. Pel.
Syntype, RMNH.MAM.34591 (Jentink 1892: 113 *e*), adult, sex unknown, mounted skin and skull. Loc.: St.George d'Elmina, Côte d'Or [Ghana]. Leg.: H.S. Pel.

Temminck (1853: 89) only mentioned specimens from Rio Boutry and Mina (St. George d'Elmina), therefore RMNH.MAM.34592, 34593 and 34630 (also collected by Pel) are excluded from the type series as they originate from Saccondé.

Hemigalus derbyanus derbyanus (Gray, 1837)

Viverra boiei Müller, 1838: 144.

Holotype by monotypy, RMNH.MAM.34645 (Jentink 1892: 118 *b*), adult male, mounted skin, skull extracted, but not in collection. Loc.: Southeast Borneo, Indonesia. Leg.: H.A. von Henrici, [1833–1836]. Ex: NAM.

Macrogalidea musschenbroekii (Schlegel, 1879)

Paradoxurus musschenbroekii Schlegel, 1879: 43.

Syntype, RMNH.MAM.32237 (Jentink 1887: 94 *a*; 1892: 116 *a*), adult male, mounted skin and skeleton. Loc.: Menado-Kinilo, Sulawesi, Indonesia. Leg.: S.C.J.M. van Musschenbroek, 2 September 1875.
Syntype, RMNH.MAM.32238 (Jentink 1887: 94 *b*; 1892: 116 *b*), adult female, mounted skin and skeleton. Loc.: Menado-Kinilo, Sulawesi, Indonesia. Leg.: S.C.J.M. van Musschenbroek, 2 September 1875.
Syntype, RMNH.MAM.32240 (Jentink 1887: 94 *c*; 1892: 116 *d*), juvenile, sex unknown, mounted skin and skull. Loc.: Menado-Tanahw[angko], Sulawesi, Indonesia. Leg.: S.C.J.M. van Musschenbroek, 1875.
Syntype, RMNH.MAM.32241 (Jentink 1887: 94 *d*; 1892: 116 *e*), juvenile female, mounted skin and skull. Loc.: Menado-Tanahw[angko], Sulawesi, Indonesia. Leg.: S.C.J.M. van Musschenbroek, 1875.

Paguma larvata larvata C.H. Smith, 1827

Gulo Larvatus C.H. Smith 1827a: 281.

Holotype by monotypy, RMNH.MAM.34762 (Jentink 1887: 95 *a*; 1892: 117 *b*), adult, sex unknown, mounted skin and skull. Loc.: “Indian continent”. Acquired in London.

Smith (1827) based his description on a single specimen in the Naturalis collection, however gave no discerning details. Temminck (1841b: 329–331) gave a detailed account of a specimen in the Naturalis collection and from this description it is clear that there is only a single specimen present. RMNH.MAM.34762 agrees very well with the description by Smith (1827a) and Temminck (1841b) (worn teeth, acquired in London) and the handwriting on the label is by Temminck.

Paguma larvata annectens Robinson & Kloss, 1917

Paguma larvata annectens Robinson & Kloss, 1917: 243.

Paratype, RMNH.MAM.20783, subadult, skin and skull. Loc.: Ulu Langat, Selangor, Malacca, Malaysia. Leg.: 18 August 1917.

Robinson and Kloss (1917) examined five specimens for their description. The holotype was in the Federated Malay States Museum (now National Museum Malaysia), but is now apparently in the NHM (NHMUK 1949.438: https://data.nhm.ac.uk/object/ba82d8fb-81bd-4330-8a82-64625d03cb14/1743638400000).

Paradoxurus musanga musanga (Raffles, 1822)

Paradoxurus hermaphroditus balicus Sody, 1933: 439.

Holotype, RMNH.MAM.33949, adult male, skin and skull. Loc.: Boeleleng, Bali, Indonesia. Leg.: A. Samat, 4 August 1930. Ex: H.J.V. Sody (E.109).
Paratypes: RMNH.MAM.33946, 33948, 33950.

Prionodon linsang gracilis (Horsfield, 1822)

Prionodon linsang fredericae Sody, 1936: 43.

Holotype, RMNH.MAM.33550, adult, sex unknown, skin and skull. Loc.: Banka, Indonesia. Leg.: H.J.V. Sody, 1929 (Bk.50).

Sody (1936) had only one specimen available.

Prionodon linsang interliniurus Sody, 1949: 157.

Holotype, RMNH.MAM.9842, adult female, skin and skull. Loc.: Tandjung Pandan, Billiton, Indonesia. Leg.: J.H. Westermann, 9 January 1938. Ex: MZB (MZB 6784), 12 January 1950.

Sody (1949: 157) based his description on two specimens. The paratype is probably still in the MZB (MZB 6783).

Prionodon pardicolor pardicolor Hodgson, 1842

Prionodon pardicolor Hodgson, 1842a: 57.

Syntype, RMNH.MAM.34771 (Jentink 1892: 113 *a*), adult, sex unknown, mounted skin, skull in situ. Loc.: Nepal. Leg.: B.H. Hodgson.

Hodgson (1842a) based his description on four specimens from Sikkim and Nepal. Jentink (1892: 113) listed RMNH.MAM.34771 as one of the types.

Viverricula indica baliensis Sody, 1931

Viverricula malaccensis baliensis Sody, 1931: 353.

Holotype, RMNH.MAM.33951, adult male, skin and skull. Loc.: Jembrana, Bali, Indonesia. Leg.: Abdul Samat, 18 August 1930. Ex: H.J.V. Sody (E 180).
Paratypes: RMNH.MAM.33947, 33952–33955.

Sody (1931: 353) based his description on seven specimens, of which the above six are in Naturalis.

Viverricula indica rasse (Horsfield, 1822)

Viverricula malaccensis atchinensis Sody, 1931: 351.

Holotype, RMNH.MAM.33971, adult female, skin and skull. Loc.: Peureulak [Perlak], E. Atjeh, Sumatra, Indonesia. Leg.: F.J. Nainggolan, 8 November 1930. Ex: H.J.V. Sody (F.116).
Paratype: RMNH.MAM.33968.

Sody (1931: 351) based his description on four specimens; two of which are in Naturalis.

Viverricula malaccensis muriavensis Sody, 1931: 353.

Holotype, RMNH.MAM.33977, adult female, skin and skull. Loc.: Gunung Muria, Keling, Java, Indonesia. Leg.: H.J.V. Sody (M.109), 26 December 1928.
Paratype: RMNH.MAM.33956.

Sody (1931: 353) based his description on two specimens; both are in Naturalis.

Viverricula indica (É. Geoffroy Saint-Hilaire, 1803)

Viverra schlegelii "Pollen" Schlegel, 1866: 78.

Syntype, RMNH.MAM.34807 (Jentink 1892: 111 *e*), adult, sex unknown mounted skin, skull in situ. Loc.: Nosy Faly, Madagascar. Leg.: F.L.P. Pollen and D.C. van Dam, 08 September 1864.
Syntype, RMNH.MAM.34808 (Jentink 1892: 111 *f*), adult, sex unknown, mounted skin, skull in situ. Loc.: Mayotte, Comoro Archipelago. Leg.: F.L.P. Pollen and D.C. van Dam, 3 July 1864.
Syntype, RMNH.MAM.34809 (Jentink 1892: 111 *g*), adult, sex unknown, mounted skin, skull in situ. Loc.: Mayotte, Comoro Archipelago. Leg.: F.L.P. Pollen and D.C. van Dam, 09 July 1864.
Syntype, RMNH.MAM.34810 (Jentink 1892: 111 *h*), adult, male, mounted skin, skull in situ. Loc.: Mayotte, Comoro Archipelago. Leg.: F.L.P. Pollen and D.C. van Dam, July 1864.
Syntype, RMNH.MAM.34811 (Jentink 1892: 111 *i*), adult male, mounted skin, skull in situ. Loc.: Mayotte, Comoro Archipelago. Leg.: F.L.P. Pollen and D.C. van Dam, July 1864.
Syntype, RMNH.MAM.34812 (Jentink 1892: 111 *j*), adult, sex unknown, mounted skin, skull in situ. Loc.: Mayotte, Comoro Archipelago. Leg.: F.L.P. Pollen and D.C. van Dam, 9 July 1864.
Syntype, RMNH.MAM.34818 (Jentink 1887: 91 *g*), juvenile, sex unknown, skull. Loc.: Mayotte, Comoro Archipelago. Leg.: F.L.P. Pollen and D.C. van Dam, July 1864.
Syntype, RMNH.MAM.34819 (Jentink, 1887: 91 *h*), juvenile, sex unknown, skull. Loc.: Nosy Faly, Madagascar. Leg.: F.L.P. Pollen and D.C. van Dam, September 1864.
Syntype, RMNH.MAM.34803 (Jentink 1887: 91 *b*; 1892: 110 *a*), adult male, mounted skin and skull. Loc.: Madagascar. Ex: NAM.

In the original description Schlegel (1866) mentioned specimens collected by Pollen on Mayotte in July (six specimens) and in Nosy Faly in September (one specimen) and a specimen from NAM, so we exclude from the type series specimens collected in other months (RMNH.MAM.34816 and 34817). In the collection we have two specimens collected in Nosy Faly in September 1864. We cannot determine which of these is the one Schlegel (1866) referred to, we therefore list both as syntypes.

Eupleridae Chenu, 1850

Fossa fossana (Statius Müller, 1776)

Viverra fossana Statius Müller, 1776: 32.

Holotype, RMNH.MAM.34458 (Jentink 1892: 111 *c*), adult, sex unknown [female], mounted skin, skull extracted and in the MNHN. Loc.: Fort Dauphin, Madagascar. Leg.: Poivre, 1756. Ex: Collection Poivre, 1761, received through MNHN, Paris, 1835.

Jentink (1899) described how he discovered this presumed lost specimen in the collection of Naturalis and after comparison located the skull in the MNHN. Based on its small size, Jentink presumed this specimen is female.

Galidia elegans elegans I. Geoffroy Saint-Hilaire, 1837

Galidia elegans I. Geoffroy Saint-Hilaire, 1837: 581.

Syntype, RMNH.MAM.34440 (Jentink 1887: 97 *c*; 1892: 120 *c*), adult, sex unknown, mounted skin and skull. Loc.: Madagascar. Leg.: J.A. Bernier, 1834.
Syntype, RMNH.MAM.34443 (Jentink 1887: 97 *f*; 1892: 120 *f*), juvenile, female, mounted skin and skull. Loc.: Madagascar. Leg.: J.A. Bernier, 1834.

According to Jentink (1879d: 131) these specimens are part of the type series of *Galidia elegans*. I. Geoffroy Saint-Hilaire (1837: 581) gave no indication of the specimens he had seen. In the online database of the MNHN a specimen (MNHN-ZM-MO-1982-1004, collected by Goudot in 1833; http://coldb.mnhn.fr/catalognumber/mnhn/zm/mo-1982-1004) is listed as holotype. As I. Geoffroy Saint-Hilaire (1837) did not nominate a type, this specimen should be listed as a syntype.

Mungotictis decemlineata decemlineata (Grandidier, 1867)

Galidia decemlineata Grandidier, 1867: 85.

Syntype, RMNH.MAM.34431 (Jentink 1887: 97 *a*; 1892: 119 *a*), subadult male, mounted skin and skull. Loc.: Madagascar. Leg.: A. Grandidier, 1866. Received 1867.

Grandidier (1867) did not specify how many specimens were available to him.

Nandiniidae Pocock, 1929

Nandinia binotata binotata (Gray, 1830)

Viverra binotata "Temminck" Gray, 1830: 9.

Syntype, RMNH.MAM.34647 (Jentink 1892: 118 *a*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Ashanti, Côte d'Or [Ghana].

Gray (1830: p. 9) described this species based on specimen(s) in Naturalis and used a manuscript name by Temminck. Jentink (1892: 118) listed two types, RMNH.MAM.34647 and 34653 (a male from the Menagerie van Aken). Gray (1830) however, only referred to specimens from Ashanti and therefore the latter is not part of the type series.

Herpestidae Bonaparte, 1845

Atilax paludinosus pluto Temminck, 1853

Herpestes pluto Temminck, 1853: 95.
Herpestes unicolor “Temminck” Jentink, 1892: 123 (in synonymy).

Syntype, RMNH.MAM.35022 (Jentink 1887: 100 *b*; 1892: 123 *b*), male, mounted skin and skull. Loc.: Dabocrom [Dabo Krom], Côte d'Or [coastal Ghana]. Leg.: H.S. Pel, 1844.
Syntype, RMNH.MAM.35023 (Jentink 1887: 100 *a*; 1892: 123 *c*), female, mounted skin and skull. Loc.: Dabo Krom, Ghana. Leg.: H.S. Pel, [1844].
Syntype, RMNH.MAM.35024 (Jentink 1892: 123 *d*), female, mounted skin, skull in situ. Loc.: Dabo Krom, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.35025 (Jentink 1887: 100 *c*; 1892: 124 *e*), juvenile, sex unknown, mounted skin and skull. Loc.: Rio Butri, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.35026 (Jentink 1892: 124 *f*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Rio Butri, Ghana. Leg.: H.S. Pel. (= *Crossarchus obscurus*).

Jentink (1892) published Temminck’s manuscript name *Herpestes unicolor* in synonymy. We have found no subsequent use as a valid name, so this name is not available.

Crossarchus obscurus F.G. Cuvier, 1825

Herpestes punctatissimus Temminck, 1853: 108.

Syntype, RMNH.MAM.35020 (Jentink 1887: 101 *a*; 1892: 124 *a*), adult female, mounted skin and skull. Loc.: Baie d'Algoa, South Africa. Leg.: Brehm.

Temminck (1853: 108) gave no indication of the number of specimens available to him.

Helogale parvula parvula (Sundevall, 1847)

Herpestes parvulus Sundevall, 1847a: 121.

Syntype, RMNH.MAM.35053 (Jentink 1887: 102 *a*; 1892: 126 *a*), adult male, mounted skin and skull. Loc.: [Port] Natal, [South Africa]. Leg.: J.A. Wahlberg. Ex: NRM, C.J. Sundevall.

In a list of exchanges with the NRM (Naturalis archives inv. 257.1191) from 26 May 1846 Sundevall wrote that the new species had not been published yet. Among the listed specimens is a *Herpestes parvulus n.sp.*

Herpestes brachyura rajah (Thomas, 1921)

Herpestes Hosei Jentink, 1903: 226.

Holotype, RMNH.MAM.34987, female, mounted skin and skull. Loc.: Baram River, Sarawak, Borneo, Malaysia. Leg.: C. Hose, [1884–1892]. Received 1893.

Hose collected in Baram District, Sarawak, from 1884 to 1892 (Hose 1893: 4).

Herpestes pulverulentus (Wagner, 1839)

Herpestes microcephalus Temminck, 1853: 113.

Holotype by monotypy, RMNH.MAM.34479 (Jentink 1887: 101 *a*; 1892: 125 *a*), subadult, sex unknown, mounted skin and skull. Loc.: [Africa].

Temminck (1853: 113) bought this specimen from a natural history dealer in [Le] Havre, but gave no date or name of the supplier. The dealer possibly was Charles Lesueur

Herpestes sanguineus Rüppell, 1835

Herpestes sanguineus Rüppell, 1835: 27.

Paralectotype, RMNH.MAM.34990 (Jentink 1887: 100 *a*; 1892: 123 *a*), subadult, sex unknown, mounted skin and skull. Loc.: Kordofan, Sudan. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 27) designated a specimen in the SMF (SMF 4330) the lectotype.

Herpestes jodoprymnus Von Heuglin, 1861b: 23.

Syntype, RMNH.MAM.34996 (Jentink 1887: 100 *d*; 1892: 122 cat. *f*), adult, sex unknown, mounted skin and skull. Loc.: Keren, Bogos, Eritrea. Leg.: Th. von Heuglin, July 1861 Ex: Naturkunde Museum Stuttgart (C.F.F. von Krauss), 1862.

Other syntypes are in Naturkunde Museum Stuttgart and the NMW (Dieterlen et al. 2013: 295).

Herpestes gracilis Rüppell, 1835: 29.

Paralectotype, RMNH.MAM.34991 (Jentink 1892: 122 a), adult, sex unknown, mounted skin and skull. Loc.: Massaua, Eritrea. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 27) designated a specimen in the SMF (SMF 4331) the lectotype.

Herpestes mutgigella Rüppell, 1835: 29.

Paralectotype, RMNH.MAM.34994 (Jentink 1887: 100 *b*; 1892: 122 *d*), juvenile, sex unknown, mounted skin and skull. Loc.: Simen, Ethiopia. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 27) designated a specimen in the SMF (SMF 4331) the lectotype.

Ichneumia albicauda loempo (Temminck, 1853)

Herpestes loempo Temminck, 1853: 93.

Syntype, RMNH.MAM.35035 (Jentink 1892: 125 *a*), male, mounted skin and skull. Loc.: Saccondee [Sekondi], Côte d'Or [Ghana]. Leg.: H.S. Pel, February 1852.
Syntype, RMNH.MAM.35036 (Jentink 1892: 125 *b*), female, mounted skin, skull in situ. Loc.: Sekondi, Ghana. Leg.: H.S. Pel, April 1852.
Syntype, RMNH.MAM.35037 (Jentink 1892: 125 *c*), male, mounted skin, skull in situ. Loc.: Rio Butri, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.35038 (Jentink 1892: 125 *d*), female, mounted skin, skull in situ. Loc.: Rio Butri, Ghana. Leg.: H.S. Pel.

Jentink (1892: 125) only listed RMNH.MAM.35037–35038 as types, however, we see no reason to exclude RMNH.MAM.35035–35036 from the type series.

Mungos mungo (J.F. Gmelin, 1788)

Herpestes zebra Rüppell, 1835: 30.

Paralectotype, RMNH.MAM.35063 (Jentink 1892: 128 a), adult, sex unknown, mounted skin and skull. Loc.: Abyssinia, [Ethiopia]. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 28) designated a specimen in the SMF (SMF 6026) the lectotype.

Urva edwardsii (É. Geoffroy Saint-Hilaire, 1818)

Herpestes fimbriatus Temminck, 1853: 112.

Holotype by monotypy, RMNH.MAM.35079 (Jentink 1892: 125 *c*), subadult, sex unknown, mounted skin, skull in situ. Loc.: India [?], no further documentation.

Temminck (1853: 113) wrote that this specimen was recently received as part of a collection from India but no provenance was given.

Urva javanica (É. Geoffroy Saint-Hilaire, 1818)

Herpestes javanicus orientalis Sody, 1936: 44.

Holotype, RMNH.MAM.33728, male, study skin and skull. Loc.: Rambipoedji [Rambipuji], Besuki District, Java, Indonesia. Leg.: J.H.F. Bras, June 1929 (Br.5).
Paratype: RMNH.MAM.22884.

Johannes Bras collected for Sody while he was stationed at Rambipuji, in eastern Besuki District, between June and November 1929 (Becking 1989: 53, 78, 228). Becking (1989: 53) gave the collection date as November 1929, but on p. 78 recorded the correct month of June.

Herpestes javanicus tjerapai Sody, 1949: 163.

Holotype, RMNH.MAM.9843, male, study skin and skull. Loc.: Perlak, Atjeh, Sumatra, Indonesia. Leg.: F.J. Nainggolan, October 1930. Ex: MZB (MZB 3185), 12 January 1950.

Sody (1949) examined five specimens, of which only the holotype is in Naturalis. Finghas Johan Nainggolan collected at Perlak in Aceh, North Sumatra, in 1930–1932 (Becking 1989: 53, 87–88, 229). Becking (1989: 87, 88) stated that the animal was collected in 1932, however on p. 53 he mentioned the correct date of October 1930.

Urva semitorquatus semitorquata (J.E. Gray, 1846)

Mungos semitorquatus uniformis Robinson & Kloss, 1919: 302.

Holotype, RMNH.MAM.20803, female, study skin and skull. Loc.: Air Taman, Mt Pasaman [Gunung Talamau] at 300 m, Ophir District, Sumatra, Indonesia. Leg.: E.A. Jacobson (259), 4 May 1917.
Paratype: RMNH.MAM.34989.

Robinson and Kloss (1919) examined several specimens; only the holotype is in Naturalis. They also referred to a specimen described by Jentink (1894: 210; RMNH.MAM.34989, collected by Van Hasselt in Sukadana, Sumatra, in 1883).

Urva semitorquata parva Jentink, 1895

Herpestes parvus Jentink, 1895: 48.

Holotype by monotypy, RMNH.MAM.34988, adult male, mounted skin and skull. Loc.: Calamian Islands, Philippines. Leg.: A.V. Schadenberg. Received December 1895.

Schadenberg collected in the Philippines in 1876–1879, 1881–1882 and again from the end of 1885 or the beginning of 1886 onwards (Van Steenis-Kruseman 1950: 465). No record of a visit to the Calamian islands during his first two sojourns is known; no itinerary of his third journey is known. Since the animal was received by Naturalis in December 1895, it was probably collected during this last expedition. Taylor (1934:

366) said of the locality “probably in Busuanga”, the main island of the group. Taylor followed Jentink (1895: 48) by stating that the skull shows signs of very old age and some missing dentition. However, the skull is intact, with a complete, although worn, set of teeth.

Urva semitorquata parva was erroneously attributed to Allen, 1910 by Jennings and Verron (2020:416).

Hyaenidae Gray, 1821

Proteles cristata cristata (Sparrman, 1783)

Protèles Lalandii I. Geoffroy Saint-Hilaire, 1824: 139.

> Syntype, RMNH.MAM.35121 (Jentink 1892: 129 *b*), mounted skin, skull extracted but not in collection. Loc.: Cap, South Africa. Leg.: P.A. Delalande [1818–1821].

Although Geoffroy Saint-Hilaire (1824) mentioned that he only had three juvenile specimens and RMNH.MAM.35121 is listed by Jentink (1892: 129) as adult, this specimen must have been available to him at the time of publication.

Canidae Fischer, 1814

Canis adustus Sundevall, 1847: 121.

Canis adustus Sundevall, 1847a: 121.

> Syntype, RMNH.MAM.64227 (Jentink 1892: 91 *c*), adult female, mounted skin, skull in situ. Loc.: “Afrique Occidental” [error for Cafreria interior, South Africa] Leg.: [?J. Wahlberg, November 1843]. Ex: NRM (1341), C.J. Sundevall.

In a list of specimens on sale from the NRM (Naturalis archives inv. 257.1191) dating 26 May 1846 Sundevall wrote that this new species had not been published yet. Among the listed specimens is a *Canis adustus n.sp* from “Caffernland”. This entry was marked by Temminck.

Jentink (1892: 91) did not list this specimen as one of the types and gave as its origin "Afrique occidentale". As the description by Sundevall (1847a) is based on material from the interior of South Africa and the specimen on the exchange list is clearly from South Africa, we consider the origin on the label and in Jentink to be an error and list this specimen as part of the type series.

The online database of the NRM lists four specimens from South Africa (Transvaal) collected in November 1843 (NRM 581337–581340) of which 581337

and 581338 are listed as types. Wahlberg collected a female and its young on 15 and 16 November 1843 (Hummel 1994: 112), which seems to agree with the specimens in the NRM. So it is uncertain if RMNH.MAM.64227 is also collected by Wahlberg or was part of a later shipment from another collector. This specimen was however available to Sundevall when he wrote the description, so should be considered part of the type series.

Canis lupaster Hemprich & Ehrenberg, 1832

Canis variegatus Cretzschmar, 1826: 31, pl. 10.
Canis flavus "Rüppell" Jentink, 1887: 78 (in synonymy).

> Paralectotype: RMNH.MAM.52989 (formerly 39175) (Jentink, 1892: 92 *a*), adult, sex unknown, mounted skin, skull extracted, see remarks. Loc.: Nubia. Leg.: W.P.E.S. Rüppell. Paralectotypes: RMNH.MAM.52990–52991, 52993, 63696.

Jentink (1887: 78) listed RMNH.MAM.63696 as *Canis flavus* Rüppell in the synonymy of *Canis variegatus*. We have not been able to find any publication of this name by Rüppell. *Canis variegatus* Cretzschmar is preoccupied by *Canis familiaris variegatus* Gmelin, 1788.

Jentink (1887; 1892) created confusion by combining a skull (Jentink 1887: 78, RMNH.MAM.63696) with a mounted specimen (not specified). In his systematic catalogue, Jentink (1892: 92) listed mounted skin cat. d, from Egypt, as the only mounted skin with an associated skull, however here Jentink referred to the skull cat. c. Only one of the two skulls (marked cat. a) listed by Jentink (1887) is still present and for the moment we assume this to be the skull associated with the mounted skin RMNH.MAM.52991.

Mertens (1925: 29) designated a specimen in the SMF (SMF 4336) as the lectotype.

Canis lupus hodophilax Temminck, 1838

Canis hodophilax Temminck, 1838b: 284.
Canis hodopylax Temminck, 1844: 38 (lapsus for hodophylax).
Canis lupus var. japonicus Nehring, 1885a: 141 (nomen novum).
Lupus japonicus Nehring, 1885a: 141 (nomen novum).

> Lectotype, RMNH.MAM.52994 (formerly 39181) (Jentink 1887: 73 *c*; 1892: 86 *a*), female, mounted skin and skull. [Captive animal, bought alive in Ōsaka], Japan. Leg.: [P.F.B. von Siebold and] H. Bürger, [14–17 March 1826]. Figured in Temminck (1844: pl. 9). Paralectotypes: RMNH.MAM.39183, 52995.

There is considerable confusion over the identity and provenance of the Naturalis specimens of the extinct southern Japanese wolf, as these are badly documented and some sources are contradictory. The oldest information is to be found in von Siebold's

notes on the mammals of Japan (See also Funk 2015); the original is in the Japan Institute in Bochum, Germany. The archives of Naturalis contain an abridged and edited copy (Inv. 257.484), not in Von Siebold's hand. Temminck used this version as a source for the Fauna Japonica and added annotations. The section on wild dogs/wolves bears the caption "*Canis Jamainu* und Ookame", Japanese vernacular names, which Von Siebold apparently could not readily relate to the taxonomic forms recognized at the time.

After having mentioned the various types of Japanese domestic dog, he discussed the hybrid status of the Jamainu between domestic dogs and the Ookame (the Japanese Wolf). He observed both forms in captivity, a living female bought in Ohosaka (Ōsaka) and two Ookames seen in Mijako (Tokyo) and Ohosaka.

Von Siebold visited Ōsaka on 13–17 March and again on 7–14 June 1826, during his journey from the Dutch trading post Deshima at Nagasaki to Jedo [the present Tōkyō] and back (Von Siebold 1897: 156–159, 218–224). The entry for 10 June reads (p. 221): "… früher hatte ich hier schon einen Wolf, (Okame), und einen wilden Hund (Jama inu) eingekauft". He apparently merges Mijako [the present Kyōto] and Ōsaka here and strangely does not mention the second "Ookame" mentioned in his manuscripts, which he must have obtained in that same week. Nevertheless, one may conclude that Von Siebold bought the live "Jamainu" and the larger "Ookame" (the skin of which became lost) in March, the smaller "Ookame", which he brought alive to Deshima, in June 1826.

Imaizumi (1970) designated RMNH.MAM.52994 the lectotype. This specimen probably stayed behind in captivity on Deshima when Von Siebold left in 1829. The specimen was sent in 1832 by Bürger, after the completion of the list of specimens for that year was completed. It is later added by Temminck to this list as No. 32bis: "Canis jamainu of ookame. Canis Hodophijlax. 1." The skull that most likely belongs to this specimen shows all signs of captivity.

A genetic study on the three specimens (Matsumura et al. 2021) found that RMNH.MAM.52994 and 39183 can indeed be identified as Japanese wolves (*Canis lupus hodophilax*), while RMNH.MAM.52995 is identified as a domestic dog (*Canis lupus familiaris*). New research by Gojobori (2024) states that RMNH.MAM.52994 is a hybrid and RMNH.MAM.52995 is a Japanese wolf.

Canis lupus familiaris Linnaeus, 1758

Canis japonicus "Temminck" Jentink, 1892: 87 (in synonymy).

Jentink (1892) published this manuscript name by Temminck in the synonymy of *Canis lupus familiaris*. We did not find any subsequent publication validating this name, therefore this name is not available.

Canis Nippon Temminck, 1838b: 285.

Temminck (1838b) introduced this name for the wild dogs of Japan. No specimens are mentioned.

Canis familiaris var. tenggerana Kohlbrugge, 1896: 283.

Syntype, RMNH.MAM.26292, adult, sex unknown, skeleton and tail. Loc.: Mt Tengger, Java, Indonesia. Leg.: J.H.F. Kohlbrugge, 1896.
Syntype, RMNH.MAM.26293, adult, sex unknown, headskin. Loc.: Mt Tengger, Java, Indonesia. Leg.: J.H.F. Kohlbrugge, 1896.
Syntype, RMNH.MAM.26294, adult, sex unknown, mounted skeleton. Loc.: Mt Tengger, Java, Indonesia. Leg.: J.H.F. Kohlbrugge, 1896.

Kohlbrugge (1896) initially based his description on a photograph of two dogs. When the two animals finally reached him, the bodies were decaying, so that only parts of the skin could be saved. The skin of the head (RMNH.MAM.26293) belongs to one of the two skeletons. Unfortunately it cannot be determined which one.

***Canis simensis simensis* Rüppell, 1835**

Canis simensis Rüppell, 1835: 39.

Syntype, RMNH.MAM.39184 (Jentink 1892: 87 a), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Sennar, Sudan. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 29) listed a specimen in the SMF (SMF 97) as "Typus", which does not comply with ICZN art. 74.5 and as Mertens consistently used the term "lektotypus" for other entries, we do not consider this to be a valid lectotype designation.

Canis Walgié Heuglin, 1862b: 428.

Syntype RMNH.MAM.63634 (Jentink 1887: 73 *a*; Jentink 1892: 87 *b*), adult female, mounted skin and skull. Loc.: Abyssinia. Leg. Th. J. von Heuglin. Received: 1865.

Jentink (1887: 73; 1892: 87) gave 1865 as the date of collection of the specimen. As Von Heuglin returned home from Abyssinia in 1863, this must be the date Naturalis received the specimen. Dieterlen et al. 2013 listed no types for *Canis walgie* in the SMNS.

Cerdocyon thous azarae (Wied, 1824)

Canis azarae Wied, 1824: text to plate [23].
Canis brasiliensis Wied, 1824: pl.[23].

> Holotype by monotypy, RMNH.MAM.17694 (Jentink 1887: 67 *c*; 1892 88 *c*), adult, sex unknown, mounted skin and skull. Loc.: Arraial da Conquista [Vitória da Conquista], Brazil. Leg.: M. zu Wied, [March 1817].

Wied (1824) published both names in the same publication, *Canis brasiliensis* as the title for his plate, and *C. azarae* as title for the description. As plate and text were published together and page numbers are not given, the priority of these names is uncertain.

Wied (1824) gave no indication of the specimens available to him. In an earlier publication Wied (1820: 208) described how he received a single specimen from hunters in Arraial da Conquista. From a later publication (Wied 1826: 343) it is also clear he only had one specimen of this species. De Avila Pires (1965) unnecessarily designated RMNH.MAM.17694 the lectotype and restricted the type locality to Sertao da Bahia, Brazil. The collecting date and locality given above are from Moraes (2009: 30).

Chrysocyon brachyurus (Illiger, 1815)

Canis campestris Wied, 1826: 334.

> Holotype by monotypy, RMNH.MAM.17693 (Jentink 1887: 73 *a*; 1892: 87 *a*), adult male, mounted skin and skull. Loc.: Brazil. Leg.: M. zu Wied, [1815–1817].

De Avila-Pires (1965: 13) unnecessarily designated RMNH.MAM.17693 the lectotype as Wied (1826) had only one specimen in his collection (Wied 1826: 335), i.e. the holotype (see ICZN art. 74.2). Wied described his specimen as incomplete skin; the specimen in Naturalis however is complete and the skull is also present.

Cuon alpinus alpinus (Pallas, 1811)

Canis primævus Hodgson, 1833: 221.

> Paralectotype, RMNH.MAM.63692 (Jentink 1892: 84 *b*), adult female, mounted skin, skull extracted but not in collection, feet missing. Loc.: Nepal. Leg.: B.H. Hodgson. Received 1859. Paralectotypes: RMNH.MAM.63693–63695.

Pocock (1936: 46) designated the lectotype in the NHM (NHMUK 1843.1.12.28).

Cuon alpinus sumatrensis (Hardwicke, 1821)

Cuon rutilans Müller, 1840a: 27.
Canis pallens "Temminck" Jentink, 1892: 84 (in synonymy).

Syntype, RMNH.MAM.52996 (formerly 39180) (Jentink 1892: 84 g), adult, mounted skin, skull extracted but not in collection. Loc.: Pontianak, Borneo, Indonesia. Leg.: P.-M. Diard. (= *C. alpinus subsp.*)
Syntype, RMNH.MAM.64307 (Jentink 1892: 84 a), semi-adult, sex unknown, mounted skin, skull extracted, but not in collection. Loc.: Indonesia, Java. Leg.: H. Kuhl and J.C. van Hasselt 1820–1821.
Syntype, RMNH.MAM.64308 (Jentink 1892: 84 d), adult, sex unknown, mounted skin skull extracted, but not in collection. Loc.: Indonesia, Java. Leg.: C.L. Blume, 1818–1826.
Syntype, RMNH.MAM.64309 (Jentink 1892: 84 f), juvenile, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Indonesia, Java. Leg.: G. van Raalten, 1820–1829.
Syntype, RMNH.MAM.64310 (Jentink 1892: 84 k; 1887: 71 i), semi-adult, sex unknown, mounted skin and skull (fragments). Loc.: Indonesia, Java. Leg.: H. Boie and H.C. Macklot, 1826–1827.
Syntype, RMNH.MAM.64311 (Jentink 1887: 71 b), adult, sex unknown, skeleton. Loc.: Indonesia, Java. Leg.: C.L. Blume, 1818–1826.
Syntype, RMNH.MAM.64312 (Jentink 1887: 71 d), adult, sex unknown, skull. Loc.: Indonesia, Java, Mt Talagabodas, found in crater. Leg.: S. Müller, 1826–1837.
Syntype, RMNH.MAM.64313 (Jentink 1887: 71 e), adult, sex unknown, skull. Loc.: Indonesia, Java. Leg.: H. Kuhl and J.C. van Hasselt 1820–1821.
Syntype, RMNH.MAM.64314 (Jentink 1887: 71 g), adult, sex unknown, skull. Loc.: Indonesia, Java. Leg.: H. Kuhl and J.C. van Hasselt 1820–1821.

Müller (1840a) only referred to specimens collected by Diard from Bengal and Borneo and recorded sightings from Java. However more specimens were available to Müller, collected by several members of the Natuurkundige Commissie voor Nederlandsch-Indië, even by Müller himself on Java, all arrived in Leiden well before 1840. Therefore, we include these specimens in the type series (ICZN art.72.4.1.1) although Jentink (1892) only listed RMNH.MAM.52996 as one of the types. No specimen from Bengale is preserved in Naturalis.

Jentink (1892: 84 cat. *i, j*) listed two specimens collected by Diard in Borneo and Ceylon, outside the known distribution of *Cuon alpinus* (Sillero-Zubiri 2020: 432). Diard visited Borneo in 1829 and Ceylon in 1858 (Van Wingerden 2023) and he might have obtained these specimens on the way or these specimens have been mixed up with other material. Pocock (1936: 35) restricted the type locality of *Cuon rutilans* Müller, 1840 to Java, however without designating a lectotype.

Jentink (1892: 84) published *Canis pallens*, a manuscript name by Temminck, in the synonymy of *Canis rutilans* Müller, 1840. We have found no subsequent use to validate this name and this name is therefore not available.

No record of a visit by Müller to Mt Talagabodas is found. P.W. Korthals visited this volcano in April–May 1833 shortly before they travelled to Sumatra together (Van Steenis-Kruseman 1950).

Lycaon pictus (Temminck, 1820)

Hyaena picta Temminck, 1820: 54, pl. XXXV.

Temminck (1820) based his description on two animals: one in captivity at W.B. Burchell in London, and another in his own collection, which was collected alive in Mozambique and died in London. According to Hamilton Smith (1840: 264) Temminck bought this specimen at the auction of the Bullock sale in 1819 (Temminck's sale catalogue nr. 11 on the tenth day sale, Naturalis archive inv. 49.44). This is the animal figured on plate 35. In 1820 Temminck's collection was incorporated into Naturalis. This specimen is not listed in Jentink (1892) and has not been found since.

Nyctereutes viverrinus viverrinus Temminck, 1838

Nyctereutes viverrinus Temminck, 1838b: 285.

Syntype, RMNH.MAM.34480 (Jentink 1887: 80 *e*), adult, sex unknown, skull. Loc.: Japan Leg.: P.F.B von Siebold, [1823–1829].
Syntype, RMNH.MAM.39185 (Jentink 1892: 94 *a*), adult male, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.39186 (Jentink 1892: 94 *b*), subadult sex unknown, mounted skin, skull in situ. Loc.: Japan Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.45461 (Jentink 1892: 94 *c*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829]
Syntype, RMNH.MAM.54996 (Jentink 1887: 80 *b*), juvenile, sex unknown, skeleton. Loc.: Japan Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.54997 (Jentink 1887: 80 *c*), adult, sex unknown skeleton. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.64208 (Jentink 1887: 80 *d*), adult, sex unknown, skull. Loc.: Japan Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.64209 (Jentink 1887: 80 *h*), adult, sex unknown, skull. Loc.: Japan Leg.: H. Bürger, [1829–1834].

Vulpes ferrilata Hodgson, 1848

Vulpes ferrilatus Hodgson, 1848: 278.

Paralectotype, RMNH.MAM.63715 (Jentink 1888: 79 *a*; 1892: 92 *a*), mounted skin and skull, adult, sex unknown. Loc.: Tibet. Leg.: B.H. Hodgson.

Thomas (1918: 370) designated the lectotype in the NHM (NHMUK 45.1.8.213).

Vulpes pallidus (Cretzschmar, 1826)

Canis pallidus Cretzschmar, 1826: 33.

Paralectotype, RMNH.MAM.64147 (Jentink 1892: 93 *a*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Nubia. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 29) designated a specimen in the SMF (SMF 4334) as the lectotype.

Vulpes rueppelii rueppellii (Schinz, 1825)

Canis Rüppellii Schinz, 1825: 508.
Canis famelicus Cretzschmar, 1826: 15.

Paralectotype, RMNH.MAM.39122 (Jentink 1892: 93 *b*), adult, sex unknown, mounted skin, skull in situ. Loc.: Nubia. Leg.: W.P.E.S. Rüppell.
Paralectotype: RMNH.MAM.39129.

A skull in the Naturalis collection (RMNH.MAM.63714, collected by Rüppell in Egypt) is excluded from the type series as Schinz (1825) and Cretzschmar (1826) based their descriptions on specimens from Nubia and Abyssinia (Dongola and Kordofan). Mertens (1925: 29) designated a specimen in the SMFN (SMFN 4335) as the lectotype for both names.

Vulpes vulpes japonica (J.E. Gray, 1868)

Canis vulpes japonicus Temminck, 1838b: 284.

Syntype, RMNH.MAM.63713 (Jentink 1892: 91 *r*), adult female, mounted skin, skull in situ. Loc.: Japan.
Syntype, RMNH.MAM.63760 (Jentink 1892: 91 *s*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Jesso, Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.63761 (Jentink 1892: 91 *t*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.63762 (Jentink 1887: 77 *f*; 1892: 91 *u*), adult female, mounted skin and skull. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.63763 (Jentink 1887: 77 *g*; 1892: 91 *v*), adult female, mounted skin and skull. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.63764 (Jentink 1887: 77 *h*; 1892: 91 *w*), adult female, mounted skin and skull. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.63765 (Jentink 1892: 91 *x*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.63766 (Jentink 1887: 77 *i*; 1892: 91 *y*), adult female, mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.63221 (Jentink 1887: 77 *e*), adult, sex unknown, skull. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.64253 (Jentink 1887: 77 *a*), adult, sex unknown, skeleton. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.64254 (Jentink 1887: 77 *b*), adult, sex unknown, skeleton. Loc.: Japan. Leg.: H. Bürger, [1829–1834].

Most authors attribute this name to Gray, 1868 (Wilson and Reeder 2005: 586; Sillero-Zubiri 2020: 426). Temminck (1838b) introduced this name for the foxes from Japan thirty years earlier. Although it is a very short description, only stating that there is a slight colour difference with the European foxes, this is not a nomen nudum in our opinion. Therefore, the author of this name should be Temminck 1838.
Later, the epithet *japonicus* was used by Gerrard (1862: 86, without a description), followed by Gray (1868: 517) who gave a description of a skull.

Jentink (1892: 91) listed RMNH.MAM.63713 as belonging to *Canis vulpes japonicus* and the stand bears this name in Temminck's handwriting; he does not list the specimens from Von Siebold and Bürger as types. Since these specimens were available to Temminck in 1838 we include these in the typeseries.

Ursidae Fischer, 1814

Ursus thibetanus japonicus Sclater, 1862

Ursus japonicus Schlegel, 1857a: 42 (nomen nudum).
Ursus japonicus Sclater 1862b: 187.
In our opinion Schlegel (1857a: 42) introduced *Ursus japonicus* as a nomen nudum, as he only stated that the Japanese Bear is very similar to the Tibetan Bear and gave no discerning characters. Sclater (1862a: 187) described two bears from Japan in the London Zoological Gardens, and named them *Ursus japonica*, without any reference to Schlegel. Later, after consulting Schlegel, Sclater (1862b: 261) realised that this name had been used earlier by Schlegel (1857a). Since the publication of this name by Schlegel is in our opinion not valid, we consider the publication by Sclater (1862b) to be valid and the type series consists of the two bears mentioned therein. This excludes the Naturalis specimens (RMNH.MAM.39187–39192, 64255) from the type series. Wilson and Reeder (2005: 590) and Garshelis (2020: 436) attributed *Ursus thibetanus japonicus* to Schlegel, 1857.

Otariidae Gray, 1825

Eumetopias jubatus (Schreber, 1776)

Phoca leonina Pallas, 1811: 106.
According to Schlegel (1844: 6, footnote) the skull described by Pallas (1811: 106 footnote 1) is in the collection of Naturalis. This skull was collected by R. Tulbagh in South-Africa and originally formed part of the Cabinet of the Stadhouder (The Hague). However, Pallas (1811) only referred to this skull as an example for the genus, not as

a type for this species. The description of *Phoca leonina* was based on material collected by Georg Wilhelm Steller.

At the time of Pallas's description almost the complete cabinet was taken to Paris by Napoleon: "a Gallis nunc rapto". We have not been able to locate this skull in Naturalis and it is not mentioned in Jentink (1887: 125). It is most likely in the MNHN.

Neophoca cinerea **(Péron, 1816)**

Arctocephalus lobatus Gray, 1828: 1, 128, pl. IV figs 4, 4a.

> Holotype by monotypy, RMNH.MAM.13442 (Jentink 1887: 123 *a*), juvenile, sex unknown, skull. Ex: Brookes Museum.

Gray (1828) based his description on a single skull in Brookes museum. This skull was listed in the sales catalogue of this collection as item 23 (Brookes 1828–1830: 97) and was bought by Temminck.

Zalophus japonicus **(Peters, 1866)**

Otaria japonica "Schlegel" Peters, 1866b: 668.
Eumetopias elongatus Gray, 1873: 776.

> Lectotype for *japonica*, RMNH.MAM.13447 (Jentink 1887: 124 *f*), male, skeleton. Loc.: Japan. Leg.: P.F.B. von Siebold, [1828?]. Figured in Schlegel (1844: pl. 22 figs 1, 2; pl. 23 figs 1, 2, 4–9).
> Syntype for *elongatus*, paralectotype for *japonica*, RMNH.MAM.13444, (Jentink 1887: 124 *c*), juvenile, sex unknown, skull. Loc.: Japan. Leg.: P.F.B. von Siebold, [1828?].
> Paralectotypes for *japonica*: RMNH.MAM.13445–13448, 39225–39227.

Schlegel (1844: 7–10) misidentified the Japanese sea lion as *Otaria stelleri* Lesson, 1828. Peters (1866b: 668) discussed these animals in his section on *Otaria lobata* (Gray, 1828). He compared skull and skin characters of these two species and concluded they are not conspecific. Peters (1866b) is the first author who formally published the manuscript name *Otaria japonica* by Schlegel and he emphasised that Schlegel's *Otaria stelleri* is not conspecific with the species described by Lesson, but is a synonym of *Otaria gilliespii* (= *Zalophus californianus*).

Jentink (1887; 1888) listed the Naturalis material under *Zalophus lobatus* Gray, the type of which is also in Naturalis (see above), with the addition "*Otaria stelleri* Temminck" and, for RMNH.MAM.39225, also "*Otaria japonica* Schlegel". He erroneously only specified RMNH.MAM.39705 and 13477 as types for *Otaria stelleri* Temminck, none of the other specimens. This is erroneous as all Naturalis specimens were available to both Schlegel and Peters, the latter referring to the presence of three skins and an unspecified number of skulls. Therefore, these are all types of *Otaria japonica* Peters, 1866. King (1961: 218) designated RMNH.MAM. 13447 the lectotype.

Gray (1873: 776) based the description for his *Eumetopias elongatus* on specimens in the NHM, but also includes the skull depicted in Schlegel (1844: pl. 22 figs 5, 6). Therefore this specimen (RMNH.MAM.13444) belongs in the type series of *Eumetopias elongatus* Gray, 1873.

Phocidae Gray, 1821

Phoca vitulina Linnaeus, 1758

Callocephalus? dimidiatus "Schlegel" Gray, 1866: 22.

Syntype, RMNH.MAM.39228 (Jentink 1892: 153 *a*), adult, sex unknown, mounted skin, skull extracted, but not in collection. Loc.: Norway.
Syntype, RMNH.MAM.39229 (Jentink 1892: 153 *b*), juvenile, sex unknown, mounted skin, skull extracted, but not in collection. Loc.: Norway.

Pusa hispida ochotensis **(Pallas, 1811)**

Phoca nummularis Schlegel, 1844: 3.

Lectotype, RMNH.MAM.16860 (Jentink 1887: 121 *c*; 1892: 153 *c*), adult, sex unknown, mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, 1834 (=*Pusa hispida ochotensis*).
Paralectotypes: RMNH.MAM.16858–16859, 39230–39233 (=*Phoca largha*).

The type series of *Phoca nummularis* consists of two species. The material collected by Bürger (RMNH.MAM.16858–16860) belongs to *Pusa hispida ochotensis* (Pallas, 1811), the specimens collected by Von Siebold (RMNH.MAM.39230–39233) belong to *Phoca largha* Pallas, 1811. King (1961) only considered the Bürger material part of the type series and designated RMNH.MAM.16860 the lectotype for *Phoca nummularis* Temminck, 1844, thereby placing it in the synonymy of *Pusa hispida ochotensis* (Pallas, 1811).
This act was overlooked by Wilson and Reeder (2005: 599), who place *Phoca nummularis* in the synonymy of *Phoca largha* Pallas, 1811. We follow Jentink (1892: 153) and include all material available to Temminck in the typeseries.

Mustelidae Fischer, 1814

Aonyx cinereus cinereus **(Illiger, 1815)**

Amblonyx cinerea wurmbi Sody, 1933: 441.

Holotype, RMNH.MAM.33855, adult female, skin and skull. Loc.: Watangan Mts. (50 m.) near Puger, Besoeki [Besuki), Java, Indonesia. Leg.: J.H.F. Bras, 8 November 1929. Ex: H.J.V. Sody (Bras III,1).

Sody (1933) based his description on one specimen only.

Lutra lutra (Linnaeus, 1778)

Lutronectes whiteleyi Gray, 1867: 181.

Syntype, RMNH.MAM.45482 (Jentink 1892: 147 *k*), mounted skin, skull extracted but not in collection. Loc.: Japan. Leg.: Ph.F.B. von Siebold, 1823–1829.
Syntype, RMNH.MAM.63635 (Jentink 1892: 147 *j*; 1887: *g*), mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, 1829–1834.
Syntype, RMNH.MAM.64257,flat skin, skull extracted but not in collection. Loc.: Japan. Leg.: Ph.F.B. von Siebold, 1823–1829.

Gray (1867) based his name on two juvenile specimens collected by Whiteley, but also referred to the description of the Japanese otters in Temminck, 1842 (p. 6), therefore including the specimens collected by Von Siebold and Bürger from Japan.

On 28 April 1826 Von Siebold received a skin of a Japanese otter in Edo (Holthuis and Sakai 1970), which of the two Siebold specimens above is unclear.

The taxonomic status of the Otters in Japan is still unresolved. Larivière and Jenning (2020: 460; see also Park et al. 2019) do not distinguish any subspecies and include the Japanese Otters in *Lutra lutra* (Linnaeus, 1778). According to Imaizumi and Yoshiyuki (1989) there are two different clades of *Lutra* in Japan, one *Lutra lutra whiteleyi*, the other a new species, *Lutra nippon* Imaizumi and Yoshiyuki, 1989. This was followed by Wozencraft (2005: 604). Waku et al. (2016), based on DNA analyses of two specimens, also found two clades, one nested in *Lutra lutra*, the other representing a distinct species or subspecies of *Lutra*, nesting with *Lutra nippon*. Unfortunately the taxonomic status of the type specimens for *Lutra lutra whiteleyi* is unknown. Morphologically RMNH.MAM.6363 and RMNH.MAM.45482 seem to be *Lutra nippon*, based on the tail and head-body length (66,6%) and the shape of the rhinarium. RMNH.MAM.64257 could not be measured, due to the state of the skin. Molecular study is required to identify these specimens conclusively. If all or some of these specimens are indeed *Lutra nippon*, the type series of *Lutronectes whiteleyi* Gray, 1867 consists of two species and a lectotype should be designated to fix this name to *Lutra lutra*.

Martes flavigula (Boddaert, 1785)

Mustela lasiotis "Temminck" Gray, 1850: 17.
Mustela Henricii "Temminck" Westerman, 1851: 13 (nec Schinz, 1845).

Syntype for *lasiotis*, paralectotype for *Henricii*, RMNH.MAM.39201 (Jentink 1887: 112 *c*, Jentink, 1892: 140 *b*), adult female, mounted skin and skull. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller, [1833–1835]. (= *M. flavigula peninsularis*)

Lectotype for *Henricii*, RMNH.MAM.52997 (Jentink 1887: 112 *b*; 1892: 140 *a*), adult male, mounted skin and skull. Loc.: Sumatra, Indonesia. Leg.: H.A. von Henrici, [1820–1827]. Received October–December 1828.
Paralectotype for *Henricii*: RMNH.MAM.64258 (Jentink 1892 f, Jentink 1887 d) (= *M. flavigula robinsoni*).

Gray (1850) listed Temminck's manuscript name *Mustela lasiotis* (for specimens from Java and Sumatra) as a synonym for *Martes flavigula* (Boddaert, 1785). Subsequent use as a valid name by Brongersma (1941: 126) made this name available. Jentink (1887; 1892) and Brongersma (1941) only listed RMNH.MAM.39201 as type for *M. lasiotis*. This is the only specimen with this name on the stand. Gray (1850) also referred to specimens from Java.

Westermann (1851) based his description on specimens in Naturalis labelled by Temminck as *Mustela Henricii* and listed by Müller (1840a: 30) as *Mustela Hardwickii* Horsfield. He was clearly unaware of the earlier use of the name *henrici* by Schinz (1845: 36), thus creating a junior homonym. See Cranbrook et al. (2007).

Martes melampus melampus (Wagner, 1841)

M.[ustela] melampus "Temminck" Wagner, 1841: 229.

Wagner (1841) based his description on a specimen in the ZSM received from Naturalis. The listing of RMNH.MAM.39202–39204, 45487, 64219 and 64274 by Jentink (1887: 111; 1892: 139) is therefore erroneous.

Martes zibellina (Linnaeus, 1758)

Mustela brachyura Temminck, 1844: 33.

Syntype, RMNH.MAM.39200 (Jentink 1892: 140 *a*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: Kouriles, 'Jezo'. Leg.: Ph.F. von Siebold, [1823–1829].

The description by Temminck (1844) is based on one or more specimens from the fur trade, with the head for a large part absent and no skeletal material. Only one specimen is present in Naturalis.

Meles anakuma Temminck, 1844

Meles anakuma Temminck, 1844: 30.

Syntype, RMNH.MAM.39194 (Jentink 1887: 108 *a*; 1892: 133 *a*), adult, mounted skin and skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.39195 (Jentink 1887: 108 *b*; 1892: 133 *b*), adult, mounted skin and skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.39196 (Jentink 1887: 108 *c*; 1892: 133 *c*), subadult, mounted skin and skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.39197 (Jentink 1892: 133 *d*), juvenile, mounted skin, skull extracted but not in collection. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].

Syntype, RMNH.MAM.39198 (Jentink 1892: 133 *e*), juvenile, mounted skin, skull in situ. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.39199 (Jentink 1887: 108 *d*), subadult, skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].

Melogale orientalis Horsfield, 1821

Mydaus maccourus "Kuhl" Temminck, 1824b: xx.

Temminck (1824b) introduced this name as a nomen novum for *Melogale orientalis* Horsfield, 1821.

Melogale orientalis sundaicus Sody, 1937

Helictis orientalis sundaicus Sody, 1937: 211.

Holotype, RMNH.MAM.33678, adult male, skin and skull. Loc.: G. Salak (600 m.), Java, Indonesia. Leg.: H.J.V. Sody, October 1931 (A.217).
Paratypes: RMNH.MAM.2228, 33674–33677, 33679–33682, 33734–33738, 64276-64281

Sody (1937) examined 29 specimens for his description; 21 of these are in Naturalis.

Melogale subaurantiaca (Swinhoe, 1863)

Helictis subaurantiaca Swinhoe, 1863: 355.

Syntype, RMNH.MAM.39193 (Jentink 1892: 137 *b*), adult, sex unknown, mounted skin, skull extracted but not in collection. Loc.: South Taiwan. Leg.: R. Swinhoe, April 1862. Received 1863.

Part III (209–394) of the 1862 Proceedings appeared in April 1863 (Duncan 1937: 72) not 1862 as given by most authors (Wilson and Reeder 2005: 612; Larivière and Jennings 2020: 454)

Mustela itatsi Temminck, 1844

Mustela itatsi Temminck, 1844: 34.

Syntype, RMNH.MAM.39207 (Jentink 1887: 114 *g*; 1892: 143 *a*), adult, mounted skin and skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.39208 (Jentink 1887: 114 *f*; 1892: 143 *b*), subadult, mounted skin and skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.64218 (Jentink 1892: 143 *h*), adult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.64283 (Jentink 1887: 111 *a*), adult, sex unknown, skeleton. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.64284 (Jentink 1887: 111 *b*), adult, sex unknown, skeleton. Loc.: Japan. Leg.: H. Bürger, [1829–1834].

Although not listed as types by Jentink (1887; 1892) RMNH.MAM.64218, 64283, 64284, were available to Temminck (1844) and are part of the type series.

Mustela kathiah Hodgson, 1835

Putorius auriventer Hodgson, 1837: 563.

Syntype, RMNH.MAM.39206 (Jentink 1892: 141 *a*), adult, mounted skin, skull in situ. Loc.: Tibet. Leg.: B.H. Hodgson.

Mustela nudipes Desmarest, 1822

Mustela hamakeri Dammerman, 1940: 266.

Holotype, RMNH.MAM. 4252, adult, skin and skull. Loc.: Djambi, Sumatra, Indonesia. Leg.: J.T. Hamaker. Ex MZB (3635).

Mephitidae Bonaparte, 1845

Mydaus marchei Huet, 1887

Mydaus schadenbergii Jentink, 1895: 46.

Holotype by monotypy, RMNH.MAM.39205, adult, sex unknown, mounted skin and skull. Loc.: Calamian Islands, Philippines. Leg.: A. Schadenberg. Received December 1895.

Procyonidae Gray, 1825

Nasua nasua solitaria Schinz, 1823

Nasua solitaria Schinz, 1821:199.
Nasua socialis Wied, 1826: 283.

Lectotype, RMNH.MAM.17697 (Jentink 1892: 130 *c*), adult, sex unknown, mounted skin , skull extracted but not in collection. Loc.: [Morro d'Arara, Rio Mucuri, Bahia] Brazil. Leg.: M. zu Wied, [Februari 1816].

Collecting date and locality are based on De Avila Pires (1965: 14) and Moraes (2009: 27). De Avila Pires (1965: 14) also designated the lectotype and restricted the type locality to Morro d'Arara, Rio Mucuri, Bahia, Brazil, based on the assumption that RMNH.MAM.17697 is one of the ten specimens collected in this location (Wied 1820: 259).

PERISSODACTYLA Owen, 1848

Equidae Gray, 1821.

Equus hemionus Pallas, 1775

Equus hemionus Pallas, 1775: 394.

According to Schreiber (2007) the type specimen for *Equus hemionus* Pallas, 1775 is no longer present in the ZIN RAS. Naturalis received two specimens from the ZIN RAS in 1862–1863 (RMNH.MAM.51044, a mare from Transbaikalia and RMNH.MAM.51045, a stallion from Dahuria). These were probably collected by Radde in October 1856 (based on their winter coat) and the Pallas type is not one of them (being a female from May 1772, in summer coat).

Rhinocerotidae Gray, 1821

Diceros bicornis bicornis (Linnaeus, 1758)

Rhinoceros bicornis Linnaeus, 1758: 56

> Neotype, RMNH.MAM.19598 (Jentink 18 *a*), adult, sex unknown, skeleton. Loc.: South Africa, Cape. Leg.: H. Boie and H.C. Macklot, 3 June 1826, purchased from Dr. Gill.

In his review of the genus *Diceros* Zukowsky (1965) pointed out the inaccuracies and uncertainties surrounding the use of the name *Rhinoceros bicornis*. In his attempt to clarify this situation he designates a ‘holotype” in the Naturalis collection. Mertens (1966: 116) rightly pointed out that a holotype can only be designated in the original publication and that the appropriate form to use is *neotype*. Since in all other aspects Zukowsky makes the necessity for this designation clear, we follow Mertens and consider the above mentioned specimen the neotype for *Rhinoceros bicornis* Linnaeus, 1758.

This specimen was offered for sale by an Englishman named Dr. Gill (probably William Gill), along with several other natural history specimens. Boie bought this specimen for the Naturalis collection during his stay in South Africa on his way to Indonesia in service of the Natuurkundige Commissie voor Nederlandsch Indië (Susanna 1834: 152).

Tapiridae Gray, 1821

Acrocodia indicus (Desmarest, 1819)

Tapirus indicus var. brevetianus Kuiper, 1926: 426, pl. I figs 1–3.

Syntype, RMNH.MAM.1384, adult male, skin (missing) and skull. Loc.: Babat District north of Musi River, Sumatra, Indonesia, 1924. Leg.: K. Brevet. From Rotterdam Zoo, 24 March 1925. Syntype, RMNH.MAM.1378, juvenile female, skin and skeleton. Loc.: Babat District north of Musi River, Sumatra, Indonesia. Leg.: K. Brevet, 1924. From Rotterdam Zoo, 27 January 1925.

Kuiper (1926: 425) described two all black tapirs caught alive in 1924 in the Babat District in the Palembang plains, South Sumatra, which were transported to Rotterdam Zoo. One of these was an adult male (pl. I fig. 1), the other was caught as a calf with a striped coat, which moulted into black (pl. I figs 2–3).

ARTIODACTYLA Owen, 1848

Suidae Gray, 1821

Babyrousa celebensis Deninger, 1910

Babyrousa babyrussa bolabatuensis Hooijer, 1950: 121, pl. III figs 3, 6–7, 9.

Grubb (2005: 637) recognised this subspecies, as it is not only known from jaws and teeth of Holocene age from the type locality (part of the Naturalis palaeontological collection (not registered) Bola Batu Cave, Badjo, Sulawesi from 1947), but also from a recent skull in the MZB (MZB 12115, from Gunung Malema, Moa, near Kulawi in C. Sulawesi; see Groves 1980: 37). Recently (Meijaard et al. 2011: 276) this taxon has been synonymised with *Babyrousa babyrussa* or *Babyrousa celebensis* (Meijaard et al. 2020: 378).

Babyrousa togeanensis Sody, 1949

Babirussa babyrussa togeanensis Sody, 1949: 187.

Holotype, RMNH.MAM.10607, adult male, skin and skull. Loc.: Malenge Island, Togian Archipelago, Indonesia. Leg.: J.J. Menden, 23 December 1939. Ex MZB (MZB 6900, 81/40), 12 January 1950.

Sody (1949) examined four specimens in the MZB; only the holotype is in Naturalis.

Phacochoerus aethiopicus (Pallas, 1766)

Phacochoerus Pallasii Van der Hoeven, 1839: 173, pl. XVIII.

Syntype, RMNH.MAM.63631 (Jentink 1887: 165 *a*; 1892: 195 *c*), female, mounted skin and skeleton. Loc.: Cap, South Africa. Ex: ménagerie de M. van Aken.
Syntype, RMNH.MAM.63632 (Jentink 1887: 165 *g*), subadult, sex unknown, skull. Loc.: Cap, South Africa. Leg.: H.B. van Horstok, [1826–1834].
Syntype, RMNH.MAM.63633 (Jentink 1887: 165 *h*), adult, sex unknown, skull. Loc.: "Pays des Aschantes?" Ex: Brookes Museum

Van der Hoeven (1839) referred to four skulls and a complete skeleton in the Naturalis collection. He specifically described RMNH.MAM.63631 (plate XVIII, fig. 1) and 63633 (plate XVIII, fig. 4), RMNH.MAM.63632 is recognisable as the specimen depicted on plate XVII, fig. 3, the fourth specimen could not be identified.

Phacochoerus africanus aeliani Cretzschmar, 1828

Phascochaeres Aeliani Cretzschmar, 1828: 61, pls 25–26.

Paralectotype, RMNH.MAM.39241 (Jentink 1887: 165 *a*; 1892: 195 *a*), adult male, mounted skin and skull. [Loc.: Surroundings of Massawa, Eritrea. Leg.: M. Hey, December 1826–January 1827]. Ex: SMF, May 1828.
Paralectotype: RMNH.MAM.39242.

Cretzschmar's description (1828) is based on a number of specimens collected during W.P.E.S. Rüppell's first expedition to Africa, first in Kordofan, later in eastern slopes of Abyssinia. The Naturalis material must be part of the latter series (see Mertens 1949 for further details).

The Naturalis specimens were received from the SMF in May 1828. The specification of that consignment, preserved in the Naturalis archives (Inv. 241.880), reads: "Toute cette collection provenant du voyage de Mr Ruppel"; the first entry mentioned two skins of "Phacochoerus cachoplebas". In September 1828, Rüppell visited Leiden, where he studied these two specimens. In a letter to Cretzschmar dated Leiden, 3 September 1828 (Mertens 1949: 340–341) he wrote: "Bei dieser Gelegenheit teile ich Ihnen die erfreuliche Nachricht mit, daß der *Phacochoeres* aus dem Kordofan und von der abessinischen Küste eine neue Spezies ist,…"; clearly, Cretzschmar had not described it yet. Mertens (1925: 30) designated a specimen in the SMF (Nr 4172) from "Massaua" the lectotype of the species. See Mertens (1925: 19) for the years of publication of Cretzschmar's work.

Sus barbatus barbatus Müller, 1838

Sus barbatus Müller, 1838: 149.

Syntype, RMNH.MAM.39243 (Jentink 1887: 163 *a*; 1892: 192 *a*), female, mounted skin and skeleton. Loc.: Pulu Lampej south of Moluko River, Bandjarmasin district, Borneo, Indonesia. Leg.: S. Müller, [24 November 1836]. Received 1837. Figured in Müller and Schlegel (1843a: pl. 31 figs 4, 5).
Syntype, RMNH.MAM.64290 (Jentink 1887: 163 *e*; 1892: 192 *c*), juvenile female, mounted skin and skull. Loc.: Bandjarmasin, Borneo, Indonesia. Leg.: S. Müller, [28 July 1836–17 December 1836]. Received 1837. Figured in Müller and Schlegel (1843a: pl. 31 figs 4, 5).

The description by Müller (1838) preceded the figures and the extensive account on the species by Müller and Schlegel (1843a: pls 30–31; 1845a: 173, 179–181). Müller's first description (1838) only mentioned the adult female, without reference to the young animal obtained in the same area, figured and described by Müller and Schlegel (1843a: pl. 30 fig. 2; 1845a: 181), but this specimen was also available to him and therefore part of the type series (according ICZN art. 72.4.1.1). Müller (1847: 445) recorded that the adult was collected on 24 November 1836 (or perhaps one of the following days), again only mentioning the sow; for the locality, see his two maps. Jentink (1892) already listed both specimens as types. The year 1837 given by Jentink (1892) is the year when Müller's collections arrived in Leiden. According to van Heurn (note attached to specimen) the juvenile cannot be a young of RMNH.MAM.39243.

Sus barbatus oi Miller, 1902

Sus barbatus edmondi Sody, 1937: 212.

Holotype, RMNH.MAM.35142, adult male, skull. Loc.: Lampung, Sumatra, Indonesia. Purchased by H.J.V. Sody, 8 February 1933 (G.32).
Paratype: RMNH.MAM.353.

According to Becking (1989: 54, 88) the holotype was purchased by Sody and originally thought to have come from the Lampung districts. Sody (1937) however, assumed that the animal had been collected further north in South Sumatra.

Sus celebensis Müller & Schlegel, 1843

Sus celebensis Müller & Schlegel, 1843a: pl. 28bis.

Syntype, RMNH.MAM.63651 (formerly 39244) (Jentink 1892: 193 *a*), subadult male[?], mounted skin. Loc.: Manado, Sulawesi, Indonesia. Leg.: E.A. Forsten, [April–June] 1841. Figured in Müller and Schlegel, 1843a: pl. 28bis fig. 1.
Syntype, RMNH.MAM.39245 (probably from RMNH.MAM.63651), (Jentink 1887: 163 *b*), subadult male, skull. Loc.: Sulawesi, Indonesia. Leg.: E.A. Forsten, [1840–1842].
Syntype, RMNH.MAM.39246, (Jentink 1887: 163 *c*), adult, sex unknown, skull. Loc.: Sulawesi, Indonesia. Leg.: E.A. Forsten, [184–1842].

Syntype, RMNH.MAM.63652 (formerly 39244), (Jentink 1892: 163 *a*), adult male, skull. Loc.: Sulawesi, Indonesia. Leg.: E.A. Forsten, [1840–1842].
Syntype, RMNH.MAM.63653 (Jentink 1892: 193 *f*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Sulawesi, Indonesia. Leg.: E.A. Forsten, [1840–1842].
Syntype, RMNH.MAM.63654 (Jentink 1892: 193 *g*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Sulawesi, Indonesia. Leg.: E.A. Forsten, [1840–1842].
Syntype, RMNH.MAM.63655, (Jentink 1892: 193 *h*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: Sulawesi, Indonesia. Leg.: E.A. Forsten, [1840–1842].

The extensive description of this species was published in 1845 (Müller and Schlegel 1845a: 172, 177–178), however plate 28bis with *Sus celebensis* was issued in 1843 (Husson and Holthuis 1955). Although the plate was drawn by Schlegel, it seems best to maintain Müller and Schlegel as co–authors here. Müller and Schlegel (1845a: 177) referred to several specimens sent by Forsten to Naturalis and explicitly stated that pl. 28bis represents the skin of an adult male and the skull of the same specimen.

In 1944, W.C. van Heurn studied the collection of Suidae in Naturalis; his notes were not published, but are attached to the respective specimens. He concluded that the figured animal is clearly skin RMNH.MAM.63651. However, according to him, this is not an old male as stated by Müller and Schlegel (1845a) and by Jentink (1892: 193; 1905: 182), but a subadult animal, not fully grown; its sex cannot reliably be determined from the mounted skin. The skull figured in pl. 28bis figs 2–3 is indeed that of an old and larger animal, with very worn and damaged teeth (possibly kept in captivity) and is recognizable as RMNH.MAM.63652. These two parts clearly do not originate from the same animal. Schlegel added the damaged and lacking teeth in the plate in an inaccurate way, drawing too many of them in the lower jaw. It seems likely (Van Heurn's notes read "not quite impossible") that skull RMNH.MAM.39245 is the one really belonging with skin RMNH.MAM.63651.

Jentink (1905: 182) regarded the figured animal as type specimen, without realising that skin and skull do not belong together. Therefore, Jentink's remark cannot be regarded as a valid lectotype designation as the designation is ambiguous (ICZN art. 74.5); all specimens collected by Forsten should be treated as syntypes.

Forsten collected in Northeast Sulawesi between March 1840 and April 1842 (Veth 1875: 98, 107; Van Steenis-Kruseman 1950: 179 and Forsten's unpublished diary in the archives of Naturalis, inv. 265.110). He worked in Minahasa (Manado) and Gorontalo districts, interrupted by a visit to Ternate. In 1841, he was at Manado from 24 April to 19 June, so he may have obtained the skin during that period.

Meijaard et al (2020: 382) treated *Sus celebensis* as monotypic and restricted to Sulawesi and the presence of this species on other islands is the result of human translocation. However if this is the case, the name *Sus timoriensis* Müller, 1840 takes priority over *Sus celebensis* Müller & Schlegel, 1843 (see below) and should therefore also be applied to the Sulawesi population.

Sus Timoriensis Müller, 1840a: 42.

Lectotype, RMNH.MAM.39256 (Jentink 1887: 163 *a*; 1892: 192 *b*), subadult male [?], mounted skin and skull. Loc.: Pariti, Timor, Indonesia. Leg.: S. Müller and H.C. Macklot, [December 1828]. Figured in Müller & Schlegel (1843a: pl. 31 figs 1–3).
Paratypes: RMNH.MAM.39254, 39255, 39257, 39258.

The very brief description by Müller (1840a) preceded the extensive account by Müller and Schlegel (1843a: pl. 31; 1845a: 173, 178–179); see Husson and Holthuis (1955) for the dates of publication of the latter work. RMNH.MAM.39256 is the specimen figured in Müller and Schlegel's pl. 31, though the picture of the animal in fig. 1 is very inaccurate. In the archives of Naturalis there is an excellent drawing of the head of this animal made by G. van Raalten (Naturalis archives, no inventory number), also a member of the Natuurkundige Commissie voor Nederlandsch-Indië. It is dated Timor, December 1828. Müller and Schlegel (1845a: 178) described it as a young male; its sex can no longer be determined from the mounted skin. The skull, however, is labelled as a female, probably erroneously (the labels are not original); Jentink (1887; 1892) apparently overlooked this discrepancy and has entered the skin as a male, the skull as a female.

Müller and Macklot worked in various places in Timor between October 1828 and October 1829 (Müller 1842: 132, 249). They collected several specimens of this pig during their stay at Pariti (Kupang Bay) by the end of 1828 (Müller 1842: 158). The label of RMNH.MAM.39256 reads 1829 which is a lapsus for 1828, and the other specimens from Pariti too, have erroneously been dated (December) 1829 by Jentink (1887; 1892). The two juvenile skins RMNH.MAM.39257–39258, labelled Timor 1829 without further locality, may be from the same series, though this cannot be ascertained. Müller (1842: 171–172) only once recorded the presence of this species elsewhere in Timor, without mentioning the collection of further specimens.

The lectotype is designated by Hardjasasmita (1987: 48). According to Groves (1981: 64) *Sus timoriensis* Muller, 1840 is a feral domestic *Sus celebensis* and its presence on Timor the result of human dispersal, followed by Meijaard et al. (2011: 287). *Sus timoriensis* Müller, 1840 however takes priority over *Sus celebensis* Müller, 1843, making it the correct name for this species.

Sus Ceramensis Rosenberg, 1867: 89.

Syntype, RMNH.MAM.64171 (Jentink 1892: 194 *c*), subadult female, mounted skin and skull. Loc.: Goram [Gorong], Indonesia. Leg.: C.B.H. von Rosenberg, 19 September 1865.

This name was first introduced by Von Rosenberg (1867: 89) with a very short description (a plain black pig), later followed by a more extensive description (Von Rosenberg 1878: 362). In our opinion the first publication is valid and this should be the citation for this name, not Von Rosenberg, 1878 as is generally used (Wilson and Reeder 2005: 642).

Sus aruensis Rosenberg, 1878: 362.

Syntype, RMNH.MAM.64172 (1892: 193 *a*), subadult female, mounted skin (missing) and skull. Loc.: Wokam, Indonesia. Leg.: C.B.H. von Rosenberg, 18 April 1865.

This name was first introduced by Von Rosenberg (1867: 86) as a nomen nudum, later followed by a description in Von Rosenberg 1878: 362.

Sus Nehringii Jentink, 1905: 186, pl. 11.
Sus Weberi Jentink, 1905: 187, pl. 12.

Syntype of *nehringii* and *weberi*, RMNH.MAM.147, adult male, skull. Loc.: Selayar Island off Sulawesi. Leg.: M. Weber (416), [November 1888].
Syntype of *nehringii*, RMNH.MAM.54960 (formerly 39392) (Jentink 1887: 163 *d*), adult female, skull. Loc.: [Makassar], Sulawesi , Indonesia. Leg.: H.A. Bernstein, 1866. Figured in Jentink (1905: pl. 11). (=? *Sus scrofa vittatus*).
Syntype of *nehringii*, RMNH.MAM.54961 (formerly 145a),adult female, incomplete skull. Loc.: Loka near Bonthain [Bantaeng], Sulawesi, [October–November] 1888. Leg.: M. Weber.
Syntype of *nehringii*, RMNH.MAM.54962 (formerly 145b), adult male, skull. Loc.: Parepare, Sulawesi, [October] 1888. Leg.: M. Weber.
Syntype of *nehringii*, ZMA.MAM.1153, adult male, skull. Loc.: caves of the dead near Birakeke, Sulawesi. Leg.: M. Weber (438), [21–30 October 1888].
Syntype of *nehringii*, ZMA.MAM.1154, adult female, skull. Loc.: caves of the dead near Birakeke, Sulawesi. Leg.: M. Weber (439), [21–30 October 1888].
Syntype of *nehringii*, ZMA.MAM.16993, juvenile female, skull. Loc.: Kadjang, Sulawesi. Leg.: M. Weber (612), [21–30 October 1888].

Jentink (1905: 186–187) mentioned seven skulls in his description of *Sus nehringii*, along with a skull in the Dresden museum (MTKD 1538) figured in Nehring (1889: pl.1, fig. 1). Jentink (1905) noticed that the Selayar specimen of his type series of *Sus nehringii* was smaller than the ones from South Sulawesi, which led him to provisionally introduce the name *Sus Weberi*"; in pl. 12 the skull is figured under that name. Weber visited Selayar during the first half of November 1888 (Weber 1890: vii, map III); the label reads 1889, which must be erroneous or the date the material arrived in Leiden.

In 1944, W.C. van Heurn studied the Suidae in Naturalis. His notes were not published, but are attached to the specimens. He found that RMNH.MAM.54960 is strongly reminiscent of a tame or feral pig of the "*Sus vittatus* group".

Bernstein only called at Makassar in November 1860, passing on his way to Ternate (Van Musschenbroek 1883: 6), so this skull must have been obtained on that occasion. He died in 1865 on the island of Batanta; the year 1866 mentioned by Jentink (1887; 1905) refers to the date when his collections were received in Leiden (20 January 1866). Weber visited Southwest Sulawesi in October and November 1888; he was at Parepare in the second week of October, at Loka somewhere during the end of October or the beginning of November, and on the island of Salayar in the first half of November (Weber 1890: v–vii, map III). The label of the Salayar skull bears the date 1889, which must be a mistake.

Meijaard et al. (2011: 382) followed Larson et al. (2005: 1621) who, based on molecular study, distinguished two clades in *Sus celebensis*, a northern form (with smaller skull size) and a southern form. If a separate taxonomic status of the southern clade is maintainable, the nominate *Sus celebensis* should be used for the northern form (the type locality) and *Sus nehringii* Jentink, 1905 is available for the southern animals.

Sus heureni Hardjasasmita, 1987: 42, 46, pl. 9.

Holotype, RMNH.MAM.63815 (formerly 1875), adult male, skull. Loc.: Pota, Manggarai Plain, Flores, Indonesia. Leg.: W.C. van Heurn, 6 May 1930.

Hardjasasmita (1987) also referred to 2 paratypes in the MZB (MZB 8382, MZB 479)

Sus scrofa leucomystax Temminck, 1842

Sus leucomystax Temminck, 1842: 6.
Sus vittatus varietas japonica Nehring, 1885b: 336 (nomen novum).

Syntype, RMNH.MAM.39247 (Jentink 1887: 161 *a*; 1892: 191 *a*), adult male (female according to Van Heurn), mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.39248 (Jentink 1887: 161 *b*; 1892: 191 *b*), subadult, sex unknown, mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.39249 (Jentink 1887: 161 *c*; 1892: 191 *c*), subadult, sex unknown, mounted skin and skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].
Syntype, RMNH.MAM.39250 (Jentink 1892: 191 *d*), subadult, sex unknown, mounted skin, skull in situ. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype, RMNH.MAM.64187 (Jentink 1887: 161 *g*), juvenile, sex unknown, skull. Loc.: Japan. Leg.: Ph.F. von Siebold, [1823–1829].

Temminck (1842: 6) introduced this name for the Japanese wild pig in the introduction of the volume on the mammals of Japan with a very short description. A more elaborate description followed later (p. 57) in the part of this volume issued in 1845 (Sherborn and Jentink 1895). In the introduction no specimens are mentioned, in the later description Temminck referred to three immature specimens, received from Siebold and Bürger. In addition Jentink (1887: 161; 1892: 191) referred to RMNH.MAM.39247 as the depicted skull on pl. 20 fig 2 and 3, which seems correct (mirrored image).This is confusing, as this is clearly an adult specimen and was identified as *Sus siamensis* on the original label in Temminck's hand.

According to a note on the label by Van Heurn, dated June 1941, the skull RMNH.MAM.64187 is probably the specimen referred to by Temminck (1842: 58) as the hybrid between a wild and a domestic pig, although according to Temminck this should be a Siebold specimen.

Sus scrofa taivanus Swinhoe, 1863

Porcula taivanus Swinhoe, 1863: 360.

Paralectotype, RMNH.MAM.45494 (Jentink 1892: 191 *g*), juvenile, sex unknown, mounted skin, skull in situ. Loc.: South West Taiwan. Leg.: R. Swinhoe. Received 1863.

Groves (1981: 36) designated a specimen in the NHM (NHMUK 70.2.10.39) the lectotype for *Porcula taivanus* Swinhoe, 1863; in his opinion the type series is a mixture between wild and domestic pigs.

Sus scrofa vittatus Boie, 1828

Sus vittatus Temminck, 1828: 66 (nomen nudum).
Sus vittatus Boie, 1828: 240.

Lectotype, RMNH.MAM.13508 (Jentink 1887: 162 *a*), [male], skeleton. Loc.: Tjikao [Cikao], Tjitaroem [Citarum] River near Purwakarta, Krawang district, Java, Indonesia. Leg.: H. Boie [& G. van Raalten], [6 January 1827].
Paralectotypes: RMNH.MAM.54963–54967.

Mees (1957: 210–214) demonstrated that Boie (1828) was the author of *Sus vittatus* and not Müller and Schlegel (1841b: pl. 32 figs 5, 6; 1843a: pl. 29; 1845a: 172–175) and that the type locality is Java. Jentink (1887; 1892) erroneously included specimens from Sumatra, collected by Müller in 1836, in the type series, followed by Hardjasasmita (1987: 50), who designated one of these Sumatran specimens (RMNH.MAM.13510) the lectotype. As this specimen is not part of the type series, this lectotype designation is not valid.

Boie first used the name *Sus vittatus* in two letters to Naturalis (Naturalis archives, no number), dated 20 (not 21 as Mees wrote) January and 18 May 1827. In these letters Boie described in detail the newly collected material of this species (two skins and one skeleton) until then only known from one skull in Leiden (RMNH.MAM.54966), which he studied before his departure to Indonesia in December 1825. He also mentioned skulls that were later sent to Leiden by Van Raalten; and finally, he referred to a drawing by Kuhl and Van Hasselt under the name *Sus javanicus*, which he must have seen in Java.

Boie again used the name *Sus vittatus* in a letter of 21 July 1827 containing a brief account of a hunting trip near Tapos, on the slope of Mt Pangrango in West Java (no pigs were obtained) and he gave a very short description of the species. This letter was published posthumously in the following year (Boie 1828). Although the species is described here in a very casual way, this account constitutes the first valid description of *Sus vittatus*.

Mees (1957: 213) only regarded the material collected by Boie and his fellow travellers as types, as only from those skins Boie could have described the white band

over the muzzle. Apparently, these skins have not been preserved; Naturalis has now only one skeleton, one skull and one mounted piglet from Boie's expedition. The adult skeleton (RMNH.MAM.13508) is almost certainly that of the boar shot by Boie and Van Raalten on 6 January 1827. Mees (1957: 213) designated this the lectotype of *Sus vittatus* Boie, 1828. The subadult skull (RMNH.MAM.54967) may be of the second animal obtained by H.C. Macklot some days later or, more likely, of the "younger" one collected later that same month. The small mounted piglet (RMNH.MAM.64327), labelled as collected by Boie and Macklot, is not mentioned in Boie's letters. This is very unlikely to be the "younger" animal mentioned above, since a tiny striped piglet would have been specified as such. It must have been collected after 21 July 1827, the date of Boie's published letter. Hence, it is not included in the type series here.

It is not clear which skulls Boie had seen in Naturalis before his departure, and which specimens in Java before they were sent off by Van Raalten. He also referred to "small pigs" reported by Reinwardt, whose identification he left to Temminck; these are no longer in Naturalis. In the inventories of Reinwardt's shipments to Leiden (Naturalis archives inv. 255.139–141) there is a head of a Javanese wild boar shipped on 29 February 1820; furthermore a skeleton and a head (probably comprising different specimens) sent from Buitenzorg (Bogor) on 12 May 1822. Only one skull (RMNH.MAM.54966) is present in Naturalis (four consignments were lost at sea); this must have been available to Boie before his departure in 1825.

Boie's other source is the material sent "later" to Leiden by Van Raalten, and the drawing under the name *Sus javanicus* by Kuhl and Van Hasselt. In a hand-written catalogue of Javanese mammals preserved in the archives of Naturalis, Van Hasselt referred to this drawing as "Sus Javanicus Nob. Tab nostra". These drawings are lost. In the Naturalis archives there are three other drawings of this species: one of a complete animal, and two "portraits" of a head. They are not signed or dated and do not bear the name *Sus javanicus*; they are captioned "Buitenzorg" only, in the same handwriting. Mees (1957: 213) erroneously assumed that these were the drawing(s) mentioned by Boie, and attributed them to G.A. Keultjes, the artist to Kuhl and Van Hasselt's expedition. However, the two heads may well have been drawn later by Van Raalten, who also was a good artist. The pictures show clear differences and seem to represent at least two animals, perhaps three; none of them shows a white band over the muzzle. As for specimens collected by Kuhl and Van Hasselt: there are two mounted skins of adults and one striped piglet in Naturalis. One skin (RMNH.MAM.54964) shows a clear white band over the muzzle, the other skin (RMNH.MAM.54963) has no trace of it, but none of the drawings can be identified with certainty with the latter specimen.

In a published letter dated Buitenzorg, 2 March 1821 (Kuhl and Van Hasselt 1822a: 86), they wrote that they had killed two new species of Pigs. Their collections were cared for and dispatched by Van Raalten; the various shipments arrived in Leiden between 1824 and 1826 (Veth 1879: 25–39). Boie and Macklot departed for Java in December 1825, so might have seen part of this material, which explains

Boie's rather vague reference to skulls sent "later" by Van Raalten. A shipping inventory of material collected by Kuhl and Van Hasselt and dispatched in 1824 from Buitenzorg lists one head of *Sus Javanicus*, so at least that one had been available to Boie in Leiden. No other records can be found in the Naturalis archives.

Taking all evidence together, it seems best to include Kuhl and Van Hasselt's specimens as paralectotypes, despite the lack of the white band in one of the skins (and the drawings) and despite the fact that the skins had not yet been prepared when Boie left for Indonesia.

Sus Milleri Jentink, 1905: 176, 195, pl. 8.

> Lectotype, RMNH.MAM.13508 (Jentink 1887: 162 a), adult, sex unknown, skeleton. Loc.: Cikao, Citarum river, Java, Indonesia. Leg.: H. Boie and G. van Raalten, 6 January 1827.
> Paralectotype, RMNH.MAM.54963.

Jentink (1905) assumed that Müller and Schlegel (1845) were the authors of the name *Sus vittatus* (based on material from Sumatra and Java) and realised that the Javan and Sumatran forms of this pig differ. He restricted *S. vittatus* to Sumatra and introduced *Sus Milleri* for the Javan form. However, since the name *S. vittatus* was first published by Boie, 1828, with type material only from Java, this restriction is erroneous (see above).

In his explanation of the plates, Jentink (1905: 195) listed two specimens as types, RMNH.MAM.13508 (pl. 8, fig. 2–4) and RMNH.MAM.54963 (pl. 8, fig. 1), thereby excluding all other specimens (RMNH.MAM.39251–39252) from the type series (ICZN 72.4.6). The lectotype was designated by Mees (1957: 213). Hardjasasmita (1987: 54) erroneously designated RMNH.MAM.39252 the (lecto)type; this specimen was not part of the type series.

Sus floresianus Jentink, 1905: 178 (nec Heude, 1899).

> Holotype, RMNH.MAM.64185 (formerly 146), adult male, skull. Loc.: Maumeri, Flores, Indonesia. Leg.: [L.F. Calon, 1891–1894]. Ex M. Weber.
> Paratypes: RMNH.MAM.64186 (formerly 146), ZMA.MAM.1157, ZMA.MAM.1158, ZMA.MAM.17802.

Jentink (1905) based his description on three female and one male skull. He nominated the latter as the type in his explanation of the plates (Jentink 1905: 195) and we list this therefore as the holotype. *Sus scrofa floresianus* Jentink, 1905 is a junior secondary homonym of *Microsus floresianus* Heude, 1899.

Weber himself only collected a single tusk (ZMA.MAM.17802) on Flores (Weber 1891: 111), but later received the four skulls through missionary L.F. Calon, who was based in Maumeri, Flores (Weber 1894: 267). We assume these skulls to be collected between 1891 (when Weber visited Calon) and 1894 (when they were in possession of Weber).

According to Groves (1981: 62) *Sus floresianus* Jentink 1905 is a feral domestic pig.

Sus vittatus pallidiloris Mees, 1957: 214.

Holotype, RMNH.MAM.13510 (Jentink 1892: 192 b), adult female, mounted skin, skull in situ. Loc.: Padang, Sumatra, Indonesia. Leg.: S. Müller, [1833–1835]. Received 1836.

Mees (1957), after demonstrating that the type locality of *Sus vittatus* (see there) is Java, renamed the Sumatran form.

Sus verrucosus verrucosus Boie, 1832

Sus verrucosus Temminck, 1828: 66 (nomen nudum).
Sus verrucosus Boie, 1832: 466.

Syntype, RMNH.MAM.13509 (Jentink 1887: 161 *a*; 1892: 191 *a*), adult, sex unknown, mounted skin and skeleton. Loc.: Tjikao [Cikao], Java, Indonesia. Leg.: H. Boie and H.C. Macklot, [20 January 1827].
Syntype, RMNH.MAM.39262 (Jentink, 1887: 162 k), semi-adult, cranium. Loc.: Java, Indonesia. Leg.: H. Boie and H.C. Macklot, [June 1826–September 1827].

Temminck (1828: 66) introduced the name *Sus verrucosus* without a formal description. The first valid description is given in a letter from Boie dating from 21 January 1827 (published by his brother, Boie 1832), in which he described how he shot a single male specimen of a new species of pig the day before and gave a short description. He also referred to a skull collected earlier, of the same species.

Sus verrucosus olivieri Sody, 1941: 393.

Holotype, RMNH.MAM.39266, adult male, skull. Loc.: Madoera, N.E. Songenap, Indonesia. Leg.: F. Engelken, 02 May 1941. Ex: H.J.V. Sody (Sus 58).
Paratypes: RMNH.MAM.35335, 35336.

Sody (1941) examined four specimens and nominated RMNH.MAM.39266 the type. Of these, three are in Naturalis; the whereabouts of the fourth specimen is unknown.

According to Meijaard et al. (2011: 287) *Sus verrucosus* is now extinct on Madura Island.

Hippopotamidae Gray, 1821

***Hippopotamus amphibius* (F. Cuvier, 1822)**

Jentink (1887: 166 *a*; 1892: 196 *a*) listed a specimen in Naturalis as "Type de M. Geoffroy" (RMNH.MAM.44000, adult male, mounted skeleton and skin. Loc.: "Abyssinia", Nile. Leg.: W.P.E.S. Rüppell. Received 1827). We have however not been able to find any new name or description by Geoffroy for this species.

Tragulidae Milne-Edwards, 1864

Tragulus napu neubronneri Sody, 1931

Tragulus javanicus neubronneri Sody, 1931: 355.

Holotype, RMNH.MAM.33771, adult male, skin and skull. Loc.: Perlak, Atjeh, Sumatra, Indonesia. Leg.: J.C. Neubronner, September 1930. Ex: H.J.V. Sody (F81).

Sody (1931) also included five specimens from Aru Bay, Sumatra published by Miller and Lyon, in the type series. Unfortunately, we have not been able to find this publication.

Cervidae Goldfuss, 1820

Axis kuhlii (Temminck, 1836)

Cervus kuhlii Temminck, 1836: viii, xi.

Syntype, RMNH.MAM. 51339 (Jentink 1887: 149 *a*), adult male, skull. Loc.: Captive animal, Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM. 43558 (Jentink 1887: 149 *c*), juvenile male, skeleton. Loc.: Iles Bavean [Bawean], Indonesia. Leg.: C.G.C. Reinwardt, [April 1816–March 1822].
Syntype, RMNH.MAM. 43559 (Jentink 1887: 149 *c*), juvenile male, postcranial skeleton. Loc.: Bori [=error?], Indonesia. Leg.: C.G.C. Reinwardt, [April 1816–March 1822].

Temminck (1828: 66) first introduced this name as nomen nudum, followed by a formal description in 1836 (see Mees 1957 for the dating). The only specimens in Naturalis from this period are skeletal material collected by Reinwardt and a skull labelled *Cervus kuhlii*, collected by Kuhl and van Hasselt. Jentink (1887: 149) ascribed the name *Cervus kuhlii* to Müller and Schlegel (1845b: 223) and he included the material collected by Diard in the type series. This material was however not available to Temminck, which means that the specimens collected by Diard on Bawean in 1841 (RMNH.MAM.51341–51344, 54969–54971, 54973, 54977 and 54978) are excluded from the type series.

RMNH.MAM.43559 is according to the label and Jentink (1887: 149) collected on Bori (one of the Moluccan islands), where this species does not occur in the wild. Either the label data got mixed up or this was a captive specimen.

Cervus nippon nippon Temminck, 1836

Cervus nippon Temminck, 1836: xxii.
Cervus sika Temminck, 1844: 54 (nomen novum).
C. n. sp. japonicus Sundevall, 1847b: 178.
S[ika]. Schlegeli Heude, 1884: 7 (nomen novum).

Lectotype for *C. nippon* and *C. sika*, syntype for *C. japonicus* and *S. schlegeli*, RMNH.MAM.25987 (Jentink 1887: 147 *e*; 1892: 177 *a*), adult male, mounted skin and skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25988 (Jentink 1887: 147 *g*; 1892: 177 *b*), adult male, mounted skin and skull. Loc.: Japan. Leg.: Ph. F. von Siebold, [1823–1829].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25989 (Jentink 1892: 177 *c*), juvenile male, mounted skin. Loc.: Japan.
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25990 (Jentink 1887: 147 *a*), adult male, skeleton. Loc.: Japan. Leg.: Ph. F. von Siebold, [1823–1829].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25991 (Jentink 1887: 147 *b*), adult male, skeleton. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25992 (Jentink 1887: 147 *c*), adult female, skeleton. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25993 (Jentink 1887: 147 *d*), adult male, skull. Loc.: Japan. Leg.: H. Bürger, [1829–1834].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25994 (Jentink 1887: 147 *f*), adult male, skull. Loc.: Japan. Leg.: Ph. F. von Siebold, [1823–1829].
Syntype for *C. japonicus* and *C. schlegeli*, paralectotype for *C. nippon* and *C. sika*, RMNH.MAM.25995 (Jentink 1887: 147 *h*), juvenile female, skull. Loc.: Japan. Leg.: Ph. F. von Siebold, [1823–1829].

Groves and Smeenk (1978) discussed the type material for *Cervus nippon* and designated a lectotype for *Cervus nippon* and *Cervus sika*. They concluded that the material from Siebold (with the possible exception of the lectotype) is probably derived from Goto Island.

The publication of *C. nippon* by Temminck dates from 1836 not 1838, as it is listed in Wilson and Reeder (2005: 663) and Mattioli (2020: 312) (see Mees 1957). Later, Temminck (1844: 54) introduced the new name *Cervus sika* for the same species, without giving any reason. Sundevall (1847b: 178) based his *Cervus japonicus* on the description by Temminck (1844: 54) and the material in Naturalis.

Heude (1884) introduced a multitude of names for geographic varieties of the sika deer and described the form from the Goto Islands (Heude 1898) as *Sika schlegeli*. Groves and Smeek (1978) consider this to be a nomen novum for *C. sika* Temmink, 1844.

Muntiacus muntjak muntjak (Zimmermann, 1780)

Cervulus pleiharicus Kohlbrugge, 1896: 192.

Lectotype, RMNH.MAM.28673, adult male, calvarium and antlers. Loc.: Pleihari [Pelaihari], Borneo, Indonesia. Leg.: J.H.F. Kohlbrugge (65), [15–21 December 1894]. Received 15–17 January 1895.

Groves and Grubb (1982) identified two separate species of *Muntiacus* on Borneo. On the one hand *Muntiacus muntjak pleiharicus* and a new species they name *Muntiacus atherodes*. They also designated the lectotype for *Cervulus pleiharicus,* as the original type series consisted of a skull and a skin (which has been lost), in their opinion not belonging to the same animal. The skin probably was a *Muntiacus atherodes*.

Muntiacus muntjak nainggolani Sody, 1932: 337.

Holotype, RMNH.MAM.33817, adult male, skull. Loc.: Sendang, Bali, Indonesia. Leg.: A. Samat, 17 July 1930. Ex: H.J.V. Sody (E.287).

Odocoileus virginianus curassavicus Wagenaar-Hummelinck, 1940

Odocoileus gymnotis curassavicus Wagenaar-Hummelinck, 1940: 65.

Holotype, RMNH.MAM.2601, adult male, skin and skeleton. Loc.: St. Silvester, St. Hyronimus, Curacao. Leg.: H.J. Paffen, 22 November 1936. Ex: P. Wagenaar-Hummelinck, 2 January 1937 (5).
Paratypes: RMNH.MAM.4039 (formerly 51298, 51301), ZMA.MAM.9621.

Wagenaar-Hummelinck (1940) listed five specimens in his description. Of the paratypes we have found two; the other paratypes from the ZMA collection (his adult male, skin and skull and female skin) couldn't be identified with certainty due to lack of specific information. The internal organs preserved on alcohol listed by Wagenaar-Hummelinck (1940) were not found.

Rangifer tarandus platyrhynchus Vrolik, 1828

Cervus platyrhynchus Vrolik, 1828: 160.

Vrolik (1828) described this new species based on a skull in the possession of G.J. van Klinkenberg, a collector and dealer in naturalia. Its whereabouts are unknown.

***Rusa timorensis djonga* Van Bemmel, 1949.**

Rusa timorensis djonga Van Bemmel, 1949: 255.

Holotype, RMNH.MAM.10604, adult male, skin and skull. Loc.: Labasa, Muna Island, Indonesia. Leg.: G.A.L. de Haan, 8 October 1948. Ex: MZB (3766), 27 June 1950.

Van Bemmel (1949) based his description on eight specimens of which only the holotype is in Naturalis.

Rusa timorensis renschi (Sody, 1932)

Cervus hippelaphus renschi Sody, 1932: 335.

Holotype, RMNH.MAM.33825, adult male, skull. Loc.: Sendang, Bali, Indonesia. Leg.: A. Samat, August 1930. Ex: H.J.V. Sody (E.281).
Paratypes: 33826–33830.

Rusa timorensis russa (Müller, 1840)

Cervus russa Müller, 1840a: 9, 56.
Cervus russa javanicus Müller & Schlegel, 1845b: 217, pl. 45, fig. 1–4.

Syntype for *C. russa* only, RMNH.MAM.17942 (Jentink 1892: 179 *e*), adult female, skin. Loc.: Sumatra, Indonesia. Leg.: S. Müller, [1833–1835]. Received 1836.
Syntype for *C. russa* only, RMNH.MAM.51438 (Jentink 1887: 150 *i*), adult female, skull. Loc.: Borneo, Indonesia. Leg.: C.A.L.M. Schwaner, [1843–1848].
Syntype for *C. russa* only, RMNH.MAM.54986 (Jentink 1887: 150 *p*), adult male, antler, missing. Loc.: Borneo, Indonesia. Leg.: S. Müller, [28 July 1836–17 December 1836].
Syntype for *C. russa* only, RMNH.MAM.54988 (Jentink 1892: 179 *c*), adult male, skin and mandibles. Loc.: Borneo, Indonesia. Leg.: S. Müller, [28 July 1836–17 December 1836]. Received 1837.
Syntype, RMNH.MAM.43496 (Jentink 1887: 150 *a*), adult male, skeleton. Loc.: Java, Indonesia. Leg.: G. van Raalten, [1820–1828].
Syntype, RMNH.MAM.51436 (Jentink 1887: 150 *c*), adult female, skull. Loc.: Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.51461 (Jentink 1887: 150 *m*), adult male, skull. Loc.: Java, Indonesia.
Syntype, RMNH.MAM.54980 (Jentink 1887: 150 *b*), adult female, skeleton, missing. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [April 1816–March 1822].
Syntype, RMNH.MAM.54981 (Jentink 1887: 150 *c*), adult female, skull, missing. Loc.: Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.54982 (Jentink 1887: 150 *d*), adult male, skull, missing. Loc.: Java, Indonesia. Leg.: H. Kuhl and J.C. van Hasselt, [December 1820–September 1821].
Syntype, RMNH.MAM.54983 (Jentink 1887: 150 *f*), adult female, skull. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [April 1816–March 1822].
Syntype, RMNH.MAM.54985 (Jentink 1887: 150 *o*), adult male, antler, missing. Loc.: Java, Indonesia.
Syntype, RMNH.MAM.54987 (Jentink 1892: 179 *a*), adult male, mounted skin, skull in situ. Loc.: Java, Indonesia. Leg.: S. Müller, 1836.

Müller (1840a: 9) pointed out the uncertainty surrounding the species of deer in Indonesia and introduced the name *Cervus russa*. In this publication he did not elaborate on it, but later in a footnote (Müller 1840a: 57) gave a short description. The author of *Cervus russa* should therefore be Müller, 1840 and not Müller and Schlegel, 1845 (as in Wilson and Reeder 2005: 670; Mattioli 2020: 312).

Müller and Schlegel (1845b: 212, 217) in their chapter on the deer of Indonesia introduced three varieties ("var.") for *Cervus russa*: *javanicus*, *timoriensis* (see below) and *moluccensis* (Quoy and Gaimard, 1830). The name *Cervus javanicus* Müller & Schlegel, 1845 is preoccupied by *Cervus javanicus* Osbeck, 1762 (= *Tragulus javanicus*)(Corbet and Hill 1992: 256).

Rusa timorensis laronesiotes Van Bemmel, 1949: 235.

Holotype, RMNH.MAM.10603, adult, skin and skull. Loc.: Meeuweneiland [Peucang], Java, Indonesia. Leg.: Ten Zeldam, 4 August 1932. Ex: MZB (MZB 3658), 27 June 1950.

Van Bemmel (1949) examined nine specimens in his original description, only the holotype is in Naturalis.

Rusa timorensis timorensis de Blainville, 1822.

Cervus timoriensis Müller & Schlegel, 1842: pl. 45. (incorrect subsequent spelling)

Müller and Schlegel (1842) first introduced the name *Cervus timoriensis* on plate 45, fig. 6, followed by the description in 1845 (Müller and Schlegel 1845b: 210; see Husson and Holthuis (1955: 22).

This is however an incorrect subsequent spelling of *Rusa timorensis* de Blainville, 1822 and this name is not available. Jentink (1887: 150; 1892: 179) erroneously listed several specimens as types for *Rusa timoriensis,* two skulls (RMNH.MAM.51426, 51429) and four missing skins.

Giraffidae Gray, 1821

Giraffa camelopardalis antiquorum Swainson, 1835

Camelopardalis antiquorum Swainson, 1835: 95.

Paralectotype, RMNH.MAM.54991 (Jentink 1892: 186 *a*), male, mounted skin, skull extracted but not in collection. Loc.: [South of Korti], Sudan. Leg.: W.P.E.S. Rüppell, [17 April–20 May 1825]. Received 1826.

The description of this species by Swainson (1835) would have been a nomen nudum, were it not for the reference to Rüppell's report on the giraffe. This report was published in Cretzschmar (1827: 23–30, pls 8–9), who referred to five specimens (two males and three females) collected by Rüppell in Nubia and Kordofan.

Schwarz (1920: 898) designated the lectotype in the SMF (SMF 498, see Mertens 1925: 31). The second male must have been the animal sent by Cretzschmar to Naturalis in 1926.

Rüppell collected two giraffes in February 1825: a male and a female in the area of Dar Hamar in Kordofan, west of El Obeid, between Umm Semim and Darfur. That male must be the lectotype in SMF. The other three animals were collected south

of Ambukol (Korti), between 17 April and 20 May 1825 (Mertens 1949: 41–43, 315–316, fig. 8). All were obtained from local hunters.

Skinner and Mitchell (2020: 306) erroneously attribute *Giraffa camelopardalis antiquorum* to Jardine, 1835.

Bovidae Gray, 1821

Addax nasomaculatus (De Blainville, 1816)

Antilope addax Cretzschmar, 1826: 19, pl. 7.

Paralectotype, RMNH.MAM.39269 (Jentink 1892: 167 *a*), adult male, mounted skin. Loc.: between Ambukol and Haraza, Sudan. Leg.: W.P.E.S. Rüppell.
Paralectotype: RMNH.MAM.39270 (Jentink 1892: 167 *b*), adult female, mounted skin. Loc.: between Ambukol and Haraza, Sudan. Leg.: W.P.E.S. Rüppell.

Cretzschmar (1826) only gave south of Ambukol as location for the type specimens, therefore we exclude RMNH.MAM.39268 (a skull collected by Rüppell in Egypt) from the type series.

Mertens (1925: 34) designated a specimen in the SMF (SMF 4276) the lectotype.

Bos javanicus javanicus d'Alton, 1823

B[os]. Javanicus d'Alton, 1823: 11, pl. VIII fig. c.
Bos banteng "Raffles" Wagner, 1844: 517.
Bos sondaicus Schlegel & Müller, 1842: pl. 35.
Bos bantiger Schlegel & Müller, 1845: 198.

Holotype by monotypy for *B. javanicus*, syntype for *B. banteng* and *B. sondaicus*, RMNH.MAM.33659 (Jentink 1887: 128 *a*), adult male, mounted skeleton. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [April 1816–March 1822].
The following syntype for *B. banteng* and *B. sondaicus* only:
Syntype, RMNH.MAM.60568 (Jentink 1892: 157 *b*), adult female, mounted skin. Loc.: Java, Indonesia. Leg.: S. Müller, [1826–1836].
Syntype, RMNH.MAM.60569 (Jentink 1892: 157 *a*), adult male, mounted skin. Loc.: Java, Indonesia. Leg.: H. Boie and H.C. Macklot, [June 1826–September 1827].
Syntype, RMNH.MAM.60601 (Jentink 1892: 157 *c*), juvenile male, mounted skin. Loc.: Java, Indonesia. Leg.: H. Kuhl, [December 1820–September 1821].
Syntype, RMNH.MAM.63659 (Jentink 1892: 157 *d*), juvenile, mounted skin, skull in situ. Loc.: Kampong Pilas, Borneo, Indonesia. Leg.: S. Müller, [12–13 September 1836]. Depicted specimen on pl. 35.
Syntype, RMNH.MAM.63660 (Jentink 1887: 128 *b*), adult female, skeleton. Loc.: Tjikao, Java, Indonesia. Leg.: H. Boie and H.C. Macklot, 1826.
Syntype, RMNH.MAM.64321 (Jentink 1887: 128 *d*), adult female, skeleton. Loc.: Sassinga, Java, Indonesia. Leg.: H. Boie and H.C. Macklot, [June 1826–September 1827].
Syntype, RMNH.MAM.64322 (Jentink 1887: 128 *c*), adult female, skeleton. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [April 1816–March 1822].

Syntype, RMNH.MAM.64323 (Jentink 1887: 157 *e*), adult male, skull. Loc.: Java, Indonesia. Leg.: H. Boie and H.C. Macklot, [June 1826–September 1827].
Syntype, RMNH.MAM.64325 (Jentink 1892: 157 *e*), neonate female, mounted skin, skull extracted but not in collection. Loc.: Java, Indonesia. Leg.: S. Müller, [1826–1836].

D'Alton (1823) was the first author to have published a valid name for this species (see Hooijer 1956). The description by d'Alton consisted of a plate depicting the skull of RMNH.MAM.33659. According to Hooijer (1956) RMNH.MAM.33659 is an adult male and RMNH.MAM.64322 is an adult female, contrary to Jentink (1887: 128) who listed them as an adult female and a subadult male respectively.

Schlegel and Müller (1845: 198) mentioned *Bos bantiger* as a name in use by several authors, but which should be rejected. We therefore do not consider this name to be available. Wagner (1844) based the description of his *Bos banteng* among others on the specimens mentioned in Schlegel and Müller (1845d: 198).

Bos sondaicus was introduced as a nomen nudum by Müller (1840a: 45) and according to Hooijer (1956: 225), Blyth (1842: 445) was the first to validate this name, predating plate 35 in Schlegel and Müller (1845d), which was published in November 1842 (Husson and Holthuis 1955: 22). However, Hooijer (1956) misread the caption to the publication by Blyth: the report is not published in April, but gives an account of the month April, read by the curator (Blyth) to the Society on 6 May 1842 (Blyth 1842: 439). This report appeared in issue 125, in vol. 1, covering January to June 1842. As we were not able to find the publication date of this issue, following the code (ICZN art. 21.3) we have to assume a publication date of 31 December 1842 and the first valid publication of *Bos sondaicus* should be attributed to Schlegel and Müller (1845d). Blyth described and figured a frontlet with horns in the Museum of the Asiatic Society of Bengal (presented by Prince William Henry of the Netherland), but also extensively referred to the specimens mentioned by Müller (1840a), specifically RMNH.MAM.63659 (Blyth 1842: 446).

The calf described by Müller (1840; 1847), RMNH.MAM.63659, was bought alive in kampong Pilas, Borneo and is depicted on pl. 35 (Müller and Schlegel 1845d). The adult bull on this plate is, according to Müller and Schlegel (1845d: 208) based on a sketch brought back from Java by Reinwardt. A drawing is still present in the Naturalis archives (inv. NC mamm 342), that could be this sketch, although there are some differences (it is not a sketch, but a complete and coloured drawing and the horns are different).

Bubalus depressicornis (Hamilton Smith, 1827)

Oreas Platyceros Temminck, 1853: 192 (in synonymy).
Antilope Celebica "Temminck" Gray, 1830: 12 (in synonymy).
Both of the above names were published in synonymy; we could not find any subsequent use to make them available.

Anoa quarlesi Ouwens, 1910: 7.

Syntype, RMNH.MAM.10606, subadult male, skin and skull. Loc.: [Toradja Mts., Sulawesi, Indonesia]. Received alive from A.J. Quarles de Quarles, 5 September 1909. Ex: MZB (3281), 27 June 1950.

Ouwens (1910) based his description on two living animals wild caught in the Toradja mountains of Sulawesi, a male and a female. We agree with the conclusions of Bergmans (2011: 845) that the specimens from ZMA (ZMA.MAM.9288–9289; 9295) cannot be syntypes. The whereabouts of the female specimen is unknown.

Capra nubiana Cuvier, 1825

Capra pallassii "Temminck" Gray, 1830: 12 (in synonymy).

The above name was published in synonymy; we could not find any subsequent use to make it available.

Capra pyrenaica lusitanica Schlegel, 1872

Capra lusitanica Schlegel, 1857b: 161 (nomen nudum).

Capra lusitanica Schlegel, 1872: 96.

Syntype, RMNH.MAM.45635, (Jentink 1887: 144 c Jentink 1892: 175 *e*), adult male, mounted skin and skull. Loc.: Sierra Nevada, Spain. Received from ZSM, 1862. (= *Capra pyrenaica hispanica*).
Syntype, RMNH.MAM.50845, (Jentink 1887: *b*; 1892: 175 *d*), adult male, mounted skin and skull. Loc.: Portugal. Received from MfN, 1860.
Syntype, RMNH.MAM.50846, (Jentink 1887: *d*; 1892: 175 *f*), adult female, mounted skin, skull extracted but not in Naturalis. Loc.: Sierra Nevada, Spain. Received from ZSM, 1862. (= *Capra pyrenaica hispanica*).

Capricornis crispus **(Temminck, 1844)**

Antilope crispa Temminck, 1844: 55, pls 18, 19.

Syntype, RMNH.MAM.39278 (Jentink 1892: 160 *a*), sex unknown, mounted skin, skull extracted but not in collection. Loc.: Japan. Leg.: [1822]. Ex: Buitenzorg Zoo (Bogor), Indonesia, 1823 through C.G.C. Reinwardt. Figured in Temminck (1844: pl. 18).
Syntype, RMNH.MAM.39279 (Jentink 1892: 160 *b*), male, mounted skin, skull extracted but not in collection. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].
Syntype, RMNH.MAM.54993 (Jentink, 1887: 131 *a*), male, skeleton. Loc.: Japan. Leg.: H. Bürger. Received 1835. Skull figured in Temminck (1844: pl. 19).
Syntype, RMNH.MAM.54995 (Jentink, 1887: 131 *c*), male, mounted skull cap with horns. Loc.: Japan. Leg.: P.F.B. von Siebold, [1823–1829].

In his description Temminck (1844) specifically mentioned two specimens, the mounted skins RMNH.MAM.39278 and 39279, but all specimens listed above were available to him and are therefore included in the type series.

Cephalophus dorsalis Gray, 1846

Cephalophus leucochilus Jentink, 1901b: 21.

Holotype by monotypy, RMNH.MAM.39283, adult female, mounted skin and skull. Loc.: Côte de Loango, Congo. Ex: Rotterdam Zoo, February 1899.

Cephalophus jentinki Thomas, 1892.

Cephalophus jentinki Thomas, 1892: 417.

Syntype, RMNH.MAM.39281 (Jentink 1887: 129 *a*; 1892: 158 *a*), adult female, mounted skin and skull. Loc.: Junkriver, Schieffelinsville, Liberia. Leg.: F.X. Stämpfli, 24 September 1884.
Syntype, RMNH.MAM.39282 (Jentink 1892: 158 *b*), adult female, mounted skin and skeleton. Loc.: Farmington river, Liberia. Leg.: F.X. Stämpfli, 19 August 1887.

Thomas (1892) gave in his description the measurement of a single specimen, but referred in his footnote to plates in Jentink, 1885 (pl. 10, mounted skin) and Jentink, 1888a (pl. 1). According to Jentink (1892: 158) RMNH.MAM.39281 is the depicted specimen on plate 10 (Jentink 1885); the horns of plate 1 (Jentink 1888a) belong to RMNH.MAM.39282.

Cephalophus niger Gray, 1846

Cephalophus niger Gray, 1846c: 165.
Cephalophus pluto Temminck, 1853: 214 (nomen novum).

Syntype, RMNH.MAM.64205 (Jentink 1887: 132 *a*), adult female, skull. Loc.: Chama [Shama], Côte d'Or, Ghana. Leg.: H.S. Pel, 1843.
Syntype, RMNH.MAM.39271 (Jentink 1887: 132 *d*), sex unknown, skull. Loc.: Côte d'Or, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.39272 (Jentink 1887: 132 *b*), adult female, skull. Loc.: Dabocrom, Côte d'Or, Ghana. Leg.: H.S. Pel, February 1843.
Syntype, RMNH.MAM.39273 (Jentink 1887: 132 c), adult male, skull. Loc.: Chama, Côte d'Or, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.39274 (Jentink 1892: 162 *a*), subadult male, mounted skin, skull extracted but not in collection. Loc.: Dabocrom, Côte d'Or, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.39275 (Jentink 1892: 163 *b*), adult female, mounted skin, skull extracted but not in collection. Loc.: Dabocrom, Côte d'Or, Ghana. Leg.: H.S. Pel.
Syntype, RMNH.MAM.39276 (Jentink 1892: 163 *c*) , juvenile male, mounted skin, skull extracted but not in collection. Loc.: Dabocrom, Côte d'Or, Ghana. Leg.: H.S. Pel.

Temminck sent a single specimen of a presumably new species of antelope under the manuscript name of *Antilope nigra* to Gray in London, who subsequently published this name (Gray 1846c: 165). Temminck (1853: 214) was however not pleased with this name because of its vagueness and the fact that it has been used before for other antelope species. He renamed this species as *Cephalophus pluto*. In his description Gray (1846c: 165) also referred to "*Antilope niger*, Mus. Leyden", hereby including the specimens in Naturalis in his type series.

Wilson and Reeder (2005: 713) stated that "The type of *niger* came from the Leiden Museum, one of a series from Chama [Shama] and Dabocrom, Ghana, including the syntypes of *pluto*. Only the specimens from Dabocrom were retained in Leiden (Jentink, 1892) so presumably the type is from Shama." As shown in the type series, the Naturalis collection also holds specimens from Shama, so the exact provenance of the London specimen cannot be ascertained. Furthermore as *Cephalophus pluto* is a nomen novum for *niger* Gray, 1864, the types for this name are the same as for *C. niger*.

***Cephalophus silvicultor* (Afzelius, 1815)**

Cephalophus thomasi Jentink, 1901a: 187.

Syntype, RMNH.MAM.39284, juvenile female, mounted skin and skeleton. Loc.: Congo-Kinshasa [Democratic Republic of the Congo] . Died June 1894 in Diergaarde Blijdorp, Rotterdam.
Syntype, RMNH.MAM.39285, adult male, mounted skin and skeleton. Loc.: Banana, Congo-Kinshasa. Imported alive 26 May 1891, died May 1899 in Diergaarde Blijdorp, Rotterdam.

Cephalophus sclateri Jentink, 1901a: 187.

Syntype, RMNH.MAM.43537, semi-adult male, skeleton and flat skin. Loc.: Grand Cape Mount, Liberia. Leg.: J. Demery, 7 February 1893.
Syntype, RMNH.MAM.50754, adult female, skull. Loc.: Grand Cape Mount, Liberia. Leg.: J. Demery, September 1896.
Syntype, RMNH.MAM.64216, adult male, skull. Loc.: Traveller's Rest, Grand Cape Mount, Liberia. Leg.: J. Demery, 9 August 1892. Received 1899.

Jentink (1901a) compared recently acquired specimens from Congo-Kinshasa and Liberia and tentatively described them as two species. The two specimens from Congo-Kinshasa were received through the Rotterdam Zoo, the three from Liberia were collected by Demery. Another specimen in Naturalis collected by Demery (RMNH.MAM.43536) also from Grand Cape Mount, Liberia is not part of the type series for *Cephalophus sclateri*; it was received in August 1901 and not mentioned by Jentink (1901a).

Cephalophus coxi Jentink, 1906: 117.

Holotype, RMNH.MAM.39280, adult male, mounted skin, skull extracted but not in collection. Loc.: North West Zimbabwe. Leg.: Cox. Ex: Rowland Ward, March 1906.

Hippotragus leucophaeus (Pallas, 1766)

Antilope leucophaea Pallas, 1766: 4.

Lectotype, RMNH.MAM.20681 (Jentink 1892: 166 *a*), male, mounted skin and fragments of premaxilla and mandibula with lower incisors, remaining parts of skull not extracted. Loc.:

[Surroundings of Swellendam, Cape Province, South Africa]. Ex: Hollandsche Maatschappij der Wetenschappen, Haarlem, 18 April 1842.

The history of what is probably the rarest and most famous mammalian specimen in Naturalis is extensively discussed by Mohr (1967) and, in more detail, by Husson and Holthuis (1969). The latter authors have demonstrated that the Naturalis specimen is almost certainly one of the several skins that Pallas had seen during his stay in the Netherlands between 1763 and 1767.
It is the only skin from this species of the days of Pallas that has been preserved. Temminck (1853: 192) referred to this specimen as "l'individu type", thereby designating it the lectotype, later formally designated by Husson and Holthuis (1969: 154). They restrict the type locality to Swellendam District in the southernmost Cape Province, South Africa, the last area where the species lived until it became extinct in about 1800. The locality Swellendam is given in Jentink's (1892: 166) catalogue, though the source of this information is not known. See Hempel et al. 2021 for an extensive overview of the specimens of this species in existence and a reconstruction of the historic distribution.

Kobus leucotis (Lichtenstein & Peters, 1853)

Antilope leucotis "Lichtenstein, Peters" Temminck, 1853: 193.

This name is generally ascribed to Lichtenstein and Peters, 1853 (p. 164), later followed by a more extensive description (Lichtenstein and Peters 1855: 96). The article was read at the meeting of the Academy on the 24th February 1853. The volume of the *Berichte* bears on the title page the year 1853, but was probably published in 1854 as the last meeting took place on 22th December 1853 (p. 781). In 1853 this name was published by Temminck (1853: 193) based on information by Schlegel taken from specimens in the MfN and using the manuscript name by Lichtenstein and Peters. If the publication by Lichtenstein and Peters is indeed from 1854, it is preceded by Temminck, 1853.

***Nanger dama ruficollis* C.H. Smith, 1827**

Antilope ruficollis C.H. Smith, 1827b: 205.

Paralectotype, RMNH.MAM.43523 (Jentink 1887: 137 *a*), subadult female, skeleton. Loc.: Kordofan, Sudan. Leg.: W.P.E.S. Rüppell, [1824–1825].
Paralectotypes: RMNH.MAM.51068, 51072–51074.

RMNH.MAM.51069, 51071 are not from Nubia/Sudan, but from North Africa and Egypt respectively, so are not part of the type series. Kock (1978b: 152) designated the lectotype in the SMF (SMF 16010) and only listed the three Naturalis specimens from Korti (RMNH.MAM.51072–51074) as paratypes, we (tentatively) also include

specimens said to originate from Nubia and Kordofan (RMNH.MAM.43523, 51068), as Smith (1827: 205) only gives Nubia as origin.

Nanger soemmeringii soemmerringii (Cretzschmar, 1828)

Antilope soemmerringii Cretzschmar, 1828: 49, tab. 19.

Paralectotype, RMNH.MAM.39286 (Jentink 1887: 137 *c*), adult, sex unknown, skull. Loc.: Abyssinia. Leg.: W.P.E.S. Rüppell.
Paralectotypes: RMNH.MAM.39287–39289.

Mertens (1925: 35) designated a specimen in the SMF (SMF 4278) the lectotype.

Neotragus pygmaeus (Linnaeus, 1758)

C.[apra] pygmea Linnaeus, 1758: 69.
Antilope spinigera Temminck, 1824b: xxx [30].
Nannotragus perpusillus Gray,1851: 126.

Syntype for *spinigera* and *perpusillus*, RMNH.MAM.39277 (Jentink 1892: 164 *b*), adult male, mounted skin, skull extracted but not in collection. Loc.: St.George d'Elmina, Côte d'Or [Ghana]. Leg.: 1824.
Syntype for *spinigera, pygmea and perpusillus*, RMNH.MAM.54992 (Jentink 1892, 165: *e*), juvenile male, mounted skin, skull in situ. Ex: [Seba].

According to a note on the stand in Temminck's hand and a footnote in Temminck (1853: 207), RMNH.MAM.54992 is one of the specimens depicted in Seba (1734: 70, pl. 43, fig. 2). Linnaeus (1758) based his *C. pygmea* on this figure and if Temminck is correct, this would mean that RMNH.MAM.54992 is one of the type specimens for this name. The adult female listed in Jentink (1887) as cat. *a* is no longer present in Naturalis.

Oreotragus saltatrixoides (Wagner, 1855)

Antilope saltatrixoides Temminck, 1853: 191.
Antilope saltatrixoides Wagner, 1855: 412.

Paralectotype, RMNH.MAM.39291 (Jentink 1887: 131 *e*; 1892: 160 *c*), adult male, mounted skin and skull. Loc.: Abyssinia, [Ethiopia]. Leg.: W.P.E.S. Rüppell.
Paralectotype: RMNH.MAM.39292.

The publication by Temminck (1853) of this name is generally seen as a nomen nudum, although a minimalistic description is given in the footnote. Temminck did not mention specific specimens, but referred to material collected by Rüppell in Abyssinia. Wagner (1855) based his publication on Temminck (1853). Mertens (1925: 35) designated a specimen in the SMF (SMF 4222) the lectotype.

Oryx dammah (Rüppell, 1826)

Antilope Dammah Rüppell in Cretzschmar, 1826: 22.

Cretzschmar (1826) based his description on field notes sent by Rüppell with his first shipment of specimens. Rüppell didn't succeed in collecting specimens of this species at the time.

Mertens (1925: 33) designated a specimen in the SMF (SMF 4223) the lectotype and in the manuscript of this type catalogue Smeek listed six paralectotypes (RMNH.MAM.39294–39299, skeletal material and two mounted skins collected by Rüppell from Egypt, Kordofan, Sennaar).

However, we must assume these specimens were collected after the publication of this name as there were no specimens available to either Rüppell or Cretzschmar and the description is based on observations. We furthermore think that in this case the author of this name should be Rüppell and not Cretzschmar, as these descriptions are quotes from Rüppel's notes.

Procapra picticaudata Hodgson, 1846

P[rocapra]. Picticaudata Hodgson, 1846: 334, pl. 2.

> Syntype, RMNH.MAM.45568 (Jentink 1887: 136 *c*), adult female, mandibles. Loc.: Tibet. Leg.: B.H. Hodgson.
> Syntype, RMNH.MAM.45569 (Jentink 1887: 136 *b*), adult female, skull. Loc.: Tibet. Leg.: B.H. Hodgson.

According to Jentink (1887: 136) RMNH.MAM.45568 originally was a complete skull, the cranium is now missing.

Raphicerus campestris (Thunberg, 1811)

*Pediotragus Horstockii [*sic] Jentink, 1900: 36, 39 (nomen novum).

As he found the description of Thunberg (1811) of *campestris* not clear and the types for Thunberg's name were presumably lost, Jentink (1900: 36) introduced this new name as a replacement for *Raphicerus campestris* (Thunberg, 1811). However even if the types are lost, they are now also the types for *Pediotragus Horstockii*. This excludes RMNH.MAM.39300–39307 (collected by Van Horstok in South Africa) from the type series.

Raphicerus campestris kelleni (Jentink, 1900)

Pediotragus Kelleni Jentink, 1900: 41.

> Syntype, RMNH.MAM.39308 (Jentink 1892: 165: *g*), juvenile, mounted skin and skull. Loc.: Chahame [Cahama], Mossamedes, Angola. Leg.: P.J. van der Kellen, 8 March 1888.

Syntype, RMNH.MAM.39309, male adult, skull. Loc.: Chahame, Mossamedes, Angola. Leg.: P.J. van der Kellen. Received 1891.
Syntype, RMNH.MAM.39310, subadult female, skull. Loc.: Chahame, Mossamedes, Angola. Leg.: P.J. van der Kellen. Received 1891.

In Grubb (2005) *Raphicerus campestris kelleni* was listed as the valid name for the subspecies from Angola and Namibia. In Groves and Grubb (2011: 154) this subspecies is mentioned in the text as *R. c. steinhardti* Zukowsky, 1924, however *R. c. kelleni* is also listed in the table with measurements. We don't see why this latter name, clearly with priority, is no longer used in Groves et al. (2020: 334).

Sylvicapra grimmia orbicularis (Peters, 1852)

Antilope orbicularis Peters, 1852a: 104.

Antilope ocularis Peters, 1852b: 186.

Syntype, RMNH.MAM.39290 (Jentink 1887: 132 a; 1892: 161 a), adult female, mounted skin and skull. Loc.: Mozambique. Leg.: W. Peters, [1843–1847].

Peters (1852a) introduced this new species under the name *Antilope orbicularis* in a newspaper article from 22 February 1852. In his later publication (Peters 1852b: 186) he described this species under the name *Antilope ocularis* without any reference to his earlier name. Jentink (1887: 132; 1892: 161) listed RMNH.MAM.39290 as one of the types for *Antilope ocularis* Peters 1852, he was obviously unaware of the earlier publication.

Ellerman et al. (1953: 182) restricted the type locality to Sena, Mozambique, however without designating a lectotype.

Tragelaphus decula (Rüppell, 1835)

Antilope Decula Rüppell, 1835: 11, pl. 4.

Paralectotype, RMNH.MAM.51627 (Jentink 1887: 141 *a*: 1892: 173 *a*), adult female, mounted skin and skull. Loc.: Abyssinia. Leg.: W.P.E.S. Rüppell.
Paralectotype: RMNH.MAM.51628. (Jentink 1887: 141 *b*: 1892: 173 *b*), juvenile, sex unknown, mounted skin and skull. Loc.: Abyssinia. Leg.: W.P.E.S. Rüppell.

Mertens (1925: 31) designated a specimen in the SMF (SMF 513) the lectotype.

CETACEA Brisson, 1762

Balaenidae Gray, 1821

Balaena mysticetus Linnaeus, 1758

huntBalaena mysticetus arctica Schlegel, 1841: 36.

> Syntype, RMNH.MAM.31161 (Jentink 1887: 177 *a*), juvenile, sex unknown, skull. Loc.: Greenland. Ex: G. and W. Vrolik.

Schlegel (1841) introduced this trinomen to distinguish the Greenland right whale in the Atlantic Arctic from the right whales occurring in other parts of the world, which he discussed under the name *Balaena mysticetus antarctica*. The latter is now placed in *Eubalaena australis* (Desmoulins, 1822), see below. Next to the skull in Naturalis, Schlegel (1841) also referred to a specimen in the Haarlem Museum (probably the Hollandsche Maatschappij der Wetenschappen, which no longer exists).

Hershkovitz (1966: 194) restricted the type locality to “Arctic, ice cap south to 75° N.”.

Eubalaena australis (Desmoulins, 1822)

Balaena mysticetus antarctica Schlegel, 1841: 37 (new combination).

Schlegel (1841: 37) included animals occurring as far apart as Japan and South Africa in this name. He mentioned the presence in Naturalis of one not fully adult skeleton and one very adult skull from the Cape of Good Hope. According to Jentink (1887), both were collected by Van Horstok (see *Balaena sieboldii* below). Since Schlegel’s trinomen is only a recombination of names of *B. mysticetus* L., 1758 and *B. antarctica* Lesson, 1828 (see above), and not the description of a new form, Jentink (1887) was in error when he catalogued the Leiden skeleton cat. *a* (RMNH.MAM.24757) as its type (omitting skull cat. *b*, RMNH.MAM.24758, the other specimen mentioned by Schlegel).

Balæna Sieboldii Gray, 1864: 349.

Gray (1864) based his name on the description of *Balaena antarctica* in the Fauna Japonica (Schlegel 1844:18, pls 28, 29). This description was based on a porcelain model, commissioned by Siebold during his stay in Japan. This model is preserved in the collection of the Wereldmuseum, Leiden (RV-1-3432).

Hunterus Temminckii Gray, 1864: 349.

Holotype by monotypy, RMNH.MAM.24757 (Jentink 1887: 177 *a*), [male], skeleton. Loc.: [Murray Bay], Capetown, South Africa. Leg.: H.B. van Horstok, [c. 20 May 1833].

Gray (1864) renamed the South African form of Schlegel's *Balaena mysticetus antarctica* (see above), referring only to the above listed skeleton in Naturalis and not mentioning the other skull (RMNH.MAM.24758). This skeleton was documented in a letter by van Horstok to C.J. Temminck of 11 February 1834 (Naturalis archives inv. 209.756). In this, he mentioned obtaining the skeleton of a small male *Balaena* during the previous winter, meaning the southern winter of 1833, caught in Murray Bay, just over 45 minutes away from the town. The animal had been caught on the very day when van Horstok had arranged shipment of his previous consignment to Leiden which, according to his earlier correspondence, was on 20 May 1833 or slightly after.

Balaenopteridae Gray, 1864

Balaenoptera borealis schlegelii Flower, 1865

Sibbaldius schlegelii Flower, 1865: 390, 408.

Holotype, RMNH.MAM.31166 (Jentink 1887: 178 *a*), sex unknown, skeleton. Loc.: Pekalongan, Java, Indonesia. Leg.: N.A.T. Arriens, 12 April 1863. Received 1864.

Jentink (1887) dated the specimen from 1864, which is the year when it arrived in Leiden. Flower (1865) presented his paper to the Zoological Society of London on 8 November 1864; it was published in May 1865 (Duncan 1937: 72).

This whale was collected on 12 April 1863 and initially destined for the museum of the Bataviaansch Genootschap van kunsten en wetenschappen (Der Kinderen 1864). However the governor-general donated the specimen to Naturalis.

Although treated as a subspecies in Wilson and Reeder (2005: 724) and Deméré (2020: 282), Keijl et al. (2019) could find no genetic difference between the holotype and other Sei Whales.

Balaenoptera physalus physalus (Linnaeus, 1758)

Balaena sulcata arctica Schlegel, 1841: 38, pl. VI figs 1–5.

Schlegel's name is primarily based on a young fin whale washed ashore on 5 April 1826 near Wijk aan Zee, The Netherlands. In his first description of this animal, Schlegel (1828) did not clearly decide upon a scientific name, though he was of the opinion that all North Atlantic Rorquals probably are conspecific. This view was repeated in 1841, where he arranged them under the new trinomen *Balaena sulcata*

arctica. In the same publication (1841: 36), however, Schlegel also introduced the name *Balaena mysticetus arctica* for the Greenland right whale (see above), which means that the name *B. s. arctica* is preoccupied by the latter.

The skeleton of the whale stranded in 1826 and described by Schlegel (1828; 1841) was given in exchange to the MNHN (Schlegel 1841: 42). Schlegel further mentioned the presence of a complete skeleton of "30 Schuh" in length and a skull of an older animal in Naturalis, as well as the skeleton of a very young specimen in the Leiden Anatomical Museum. These would all belong in the type series. Although Hershkovitz (1966: 166) wrote: "type a skeleton in the Leiden museum", none of these specimens has been catalogued by Jentink (1887) and can be traced any longer.

***Megaptera novaeangliae kuzira* (Gray, 1866)**

Balaena sulcata antarctica Schlegel, 1841: 43.
Megaptera kuzira Gray, 1866: vi, 130.

Gray (1866) based his name on the description in the Fauna Japonica (Schlegel 1844: 18, pl. 30; erroneously referred to by Gray as page 27) of *Balaena antarctica* and on a skull collected in Java by Reinwardt (Jentink, 1887: 175 cat. *b*). This skull has not been found in Naturalis and we assume it is lost. Plate 30 in Schlegel, 1844 in turn was based on a drawing by the Japanese artist Toioske (Keiga Kawahara) of a beached specimen on the south coast of Japan. This specimen was not collected, but the archive of Naturalis still houses the original drawing (no inventory number).

Delphinidae Gray, 1821

***Delphinus delphis tropicalis* van Bree, 1971**

Delphinus tropicalis Van Bree, 1971: 345 (nomen novum).

Van Bree (1971: 345) proposed this new name as a replacement for *Delphinus longirostris* Cuvier, 1829 and *Delphinus dussumieri* Fischer, 1829, for all three names the holotype is the MNHN (MNHN-ZM-AC-A3065).

***Globicephala macrorhynchus* (Gray, 1846)**

Globiocephalus Sieboldii Gray, 1846b: 32.

> Holotype by monotypy, RMNH.MAM.21648 (Jentink 1887: 175 *d*), juvenile, sex unknown, skeleton. Loc.: Nagasaki, Kyūshū, Japan. Leg.: Ph.F. von Siebold, October 1827.

Schlegel (1841: 33; 1844: 17, pl. 27 figs 1–4) identified this very young animal as *Delphinus globiceps* Cuvier, 1812. Gray (1846b: 32) treated it as a distinct species, referring to Von Siebold's specimen described and figured in the Fauna Japonica (Schlegel 1844: 17).

Hershkovitz (1966: 97) treated *sieboldii* as a valid subspecies of *Globicephala melaena*, and noted that *sieboldii* antedates *macrorhynchus*. Both names appeared in the same publication (Gray, 1846b), so were published on the same date. Furthermore *sieboldii* was described on page 32 and *macrorhynchus* on page 33, we agree with Hershkovitz that *sieboldii* should have priority over *macrorhynchus*.

***Grampus griseus* (Cuvier, 1812)**

Grampus sakamata Gray, 1846b: 31.

Gray (1846b) based this name on a description by Schlegel (1844: 25) of a specimen under the name *Delphinus orca*. The description by Schlegel is based on a Japanese publications. There are no known type specimens.

***Leucopleurus acutus* (Gray, 1828)**

Delphinus (Grampus) acutus Gray, 1828: 2.

> Holotype by monotypy, RMNH.MAM.18281 (Jentink 1887: 175 *a*), sex unknown, skull. Ex: museum of J. Brookes, London, [1828].

Gray (1828) based his description on a skull in the museum of J. Brookes in London. Part of this collection was bought by C.J. Temminck for Naturalis in 1828 (Gijzen, 1938: 162). See also Brookes 1828–1830: 39.

Delphinus eschrichtii Schlegel, 1841: 23, pl. I fig. 1, II fig. 4, IV fig. 5.

> Holotype by monotypy, RMNH.MAM.31210 (Jentink 1887: 174 *b*), sex unknown, skeleton. Loc.: Faroes, Denmark. Leg.: D.F. Eschricht, 1838.

Schlegel (1841: 24) already suggested that this form may be conspecific with *Delphinus acutus* Gray, 1828.

Delphinus leucopleurus Rasch, 1843a: 100, pl. II, III figs 1A–D.

> Syntype, RMNH.MAM.31209 (Jentink 1887: 174 *a*), sex unknown, skeleton. Loc.: [Drøbak], Norway. Leg.: H. Rasch, [June 1842]. Ex: NHMO, 1844.
>
> Syntype, RMNH.MAM.31211 (Jentink 1887: 174 *c*; 1892: 200 *a*), sex unknown, skin and skull. Loc.: [Drøbak], Norway. Leg.: H. Rasch, [June 1842]. Ex: NHMO, 1844.

Rasch (1843a) described this form based on a group of 23 dolphins driven ashore by the end of June 1842 near Drøbak in Christiania (Oslo) Fjord, Norway. All animals collected from this group belong in the type series. Rasch (1843b: 202) withdrew his new name later in the same volume of the journal, explaining that he misunderstood a description of Eschricht of similar whales and thus placing his *Delphinus leucopleurus* in synonymy.

Hershkovitz (1966: 61) wrote: “type skeleton in Christiania Museum”, which does not constitute a valid lectotype designation, as it is not specific. Øysten and Bachmann (2013: 595) list a syntype in the NHMO (NHMO 2645).

The material in Naturalis was received in 1844. Apparently, Jentink overlooked that they formed part of the type series.

Stenella longirostris (Gray, 1828)

Delphinus longirostris Gray, 1828: 1.

> Holotype by monotypy, RMNH.MAM.8676 (Jentink 1887: 173 *a*), sex unknown, skull. Loc.: "Cap". Ex: museum of J. Brookes, London, 1828.

Gray (1828) described this species from a single skull in the museum of J. Brookes in London. Part of the Brookes collection was acquired by C.J. Temminck for Naturalis in 1828 (Gijzen, 1938: 162). The locality “Cap” given on the label (which is not the original) of the holotype is doubtful, Gray (1828) did not mention a locality. The assumed locality of RMNH.MAM.8676 could be explained by the fact that Schlegel (1841: 20; 1844: 13) and Gray (1846b: 42) included *Delphinus capensis* Gray, 1828, type locality Cape of Good Hope, in *D. longirostris*. It therefore seems that Jentink (1887) added the locality “Cap” for the holotype by inference.

Steno bredanensis (G. Cuvier, 1828)

Delphinus reinwardtii Schlegel, 1841: 27, pl. III figs 2–3, IV fig. 7.

> Syntype, RMNH.MAM.31179 (Jentink 1887: 173 *a*), sex unknown, skull. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [1821–1822]. Figured in Schlegel (1841: pls III figs 2–3, IV fig. 7).
>
> Syntype, RMNH.MAM.31180 (Jentink 1887: 173 *b*), sex unknown, incomplete skull. Loc.: Java, Indonesia. Leg.: C.G.C. Reinwardt, [1821–1822].

Reinwardt collected on Java between April 1816 and June 1822, with a short break between February 1821 until December 1821. Most of Reinwardt’s specimens collected between 1816 and 1820 were lost by shipwreck (Reinwardt 1858: 221–224;

Veth 1879: 18). The material obtained later was taken to Leiden by Reinwardt himself on his return voyage in June 1822 (Veth 1879: 19), including these skulls (see Schlegel 1841: 27).

Phocoenidae Gray, 1825

Neophocaena sunameri Pilleri & Gihr, 1975

Delphinus melas Schlegel, 1841: 32 (nec Traill, 1809).
Neophocaena sunameri Pilleri & Gihr, 1975: 668.

Holotype, RMNH.MAM.23079 (Jentink 1887: 175 *a*), sex unknown, incomplete skeleton. Loc.: [Off Nagasaki, Kyūshū], Japan. Leg.: H. Bürger, [1832].

Schlegel's first description of this species was published in 1841, with a reference to "Fauna jap. Mammalia, Taf. 25 und 26". However, text and plates of the marine mammal section of the Fauna Japonica only appeared in December 1844 (Holthuis and Sakai 1970: 72); apparently, these plates had already been drawn in 1841. Though not mentioned in the title, this part of the Fauna japonica was written by Schlegel, not by Temminck, as assumed by most authors. Here (p. 14 footnote 2), Schlegel already pointed out that the name *Delphinus melas* had earlier been used by Traill (in 1809), so *Delphinus melas* Schlegel, 1841 is a junior homonym. Nonetheless, Schlegel retained the name. The form living in Japanese waters has been renamed by Pilleri and Gihr (1975), based on the same holotype.

The animal was collected by Bürger in 1832 and its skeleton sent from Japan on 31 December 1832, under the name *Delphinoptera Namenoiwo*, the latter being the Japanese vernacular name of the species. The year 1834 mentioned by Jentink (1887) therefore is incorrect. Bürger was stationed on the artificial island of Deshima off Nagasaki, so the animal was probably caught near that city.

Phocoena phocoena (Linnaeus, 1758)

Phocaena phocaena var. acuminata Van Deinse, 1935: 115.
Phocaena phocoena acuminata conidens Van Deinse, 1946: 158.

Holotype, RMNH.MAM.5651, male, skeleton. Loc.: Zoutelande, The Netherlands. Leg.: A.B. van Deinse, 14 December 1934.

Van Deinse (1935) described a decomposed and, in his opinion, aberrant harbour porpoise, characterised by the pointed tip of the snout as opposed to the round melon

normally seen in this species. He did not realise that this feature is the result of decomposition of the melon. A similar animal had been found slightly further south near Dishoek, on 13 December 1934. This could be regarded as the paratype; the whereabouts of this specimen are unknown. Even more strangely, Van Deinse (1946: 158) added a fourth name to RMNH.MAM.5651, calling it *Phocaena phocoena acuminata conidens* in view of its blunt, conical teeth, which in harbour porpoises is a sign of wear with age. Being a quadrinomen, this name is invalid.

Physeteridae Gray, 1821

Physeter macrocephalus Linnaeus, 1758

Physeter catodon Linnaeus, 1758: 76.

> Neotype, RMNH.MAM.5828, male, skeleton. Loc.: Middelplaat, Westerschelde, The Netherlands. Leg.: Naturalis, 23–24 February 1937.

The nomenclature of the sperm whale is extensively discussed by Husson and Holthuis (1974), who demonstrated that the correct name is *Physeter macrocephalus* Linnaeus, 1758 (p. 76).

The name *Physeter catodon* Linnaeus, 1758, published on the same page as *Physeter macrocephalus*, is based on a composite of a *Globicephala melas* (Traill, 1809) and a sperm whale. In order to preserve the name for the latter species, Husson and Holthuis (p. 212) designated a neotype for *P. catodon*, the smaller of the two sperm whales that became stranded in the Scheldt Estuary on the night of 23–24 February 1937.

Ziphiidae Gray, 1865

Mesoplodon peruvianus Reyes, Mead & Van Waerebeek, 1991

Mesoplodon peruvianus Reyes, Mead & Van Waerebeek, 1991: 4.

> Paratype, RMNH.MAM.38234, subadult female, skull. Loc.: Off Pucusana, Peru. Leg.: J.C. Reyes (JCR 1512), 7 June 1989.

Eurhinodelphinidae Abel, 1901

Vanbreenia trigonia Bianucci & Landini, 2002

Vanbreenia trigonia Bianucci & Landini, 2002: 189, figs 2–4, 5B, 6.

Holotype, RGM.816628 (formerly ZMA.17943), sex unknown, incomplete skull. Loc.: Miste (51°58'N, 6°44'E), The Netherlands. Leg.: D.J. Mol and von der Hocht, 2–8 August 1975.

This extinct fossil species was listed in Bergman (2011: 846) as part of the ZMA mammal collection. Due to the different arrangement of the collections in Naturalis all fossil specimens are now part of the paleontological collection.

References

Abe H (1967) Classification and biology of Japanese Insectivora (Mammalia) I. Studies on variation and classification. Journal of the Faculty of Agriculture, Hokkaido University 55: 191–265.

Allamand JNS (1778) Addition à l'article du Tzeiran. In: Buffon GL. Histoire naturelle, générale et particulière. Servant de suite à l'histoire des animaux quadrupèdes. Supplément tome quatrième. Nouvelle édition. XII. J.H. Schneider, Amsterdam, 99, 151–153 [1 pl.].

Almaça C (1992a) Notes on Capra pyrenaica lusitanica Schlegel, 1872. Mammalia 56(1): 121–124. https://doi.org/10.1515/mamm.1992.56.1.121

Almaça C (1992b) Name, authorship, type specimen, and type locality of the Iberian lynx. Mammalia, 56: 659–662.

Andersen K (1905) On some bats of the genus *Rhinolophus*, with remarks on their mutual affinities, and descriptions of twenty-six new forms. Proceedings of the general meetings for scientific business of the Zoological Society of London 1905 (2): 75–145 [pls 3–4].

Andersen K (1908a) Twenty new Forms of *Pteropus*. The Annals and Magazine of Natural History. Including Zoology, Botany, and Geology 8th series 10: 361–370.

Andersen K (1908b) Preliminary Descriptions of Two new Species of *Myonycteris*. The Annals and Magazine of Natural History. Including Zoology, Botany, and Geology 8th series 11: 450-451.

Andersen K (1912) Catalogue of the Chiroptera in the collection of the British Museum. Second edition. Volume I: Megachiroptera. The British Museum (Natural History), London, ci + 854 pp.

Angermann R (1966) Beiträge zur Kenntnis der Gattung Lepus (Lagomorpha, Leporidae), II. Mitteilungen aus dem Zoologischen Museum in Berlin 42: 321–335.

Baker DB (2001) Alfred Russel Wallace's record of his consignments to Samuel Stevens, 1854–1861. Zoologische Mededelingen 75: 251–341.

Bangs O (1897) *Evotomys proteus* sp. nov. In Bailey (1897) The American Voles of the Genus Evotomys. Proceedings of the Biological Society of Washington 11: 137.

Bangs O (1898) The Land Mammals of Peninsular Florida and the Coast Region of Georgia. Proceedings of the Boston Society of Natural History 28: 157–236.

Bauchot M-L, Daget J, Bauchot R (1990) L'ichtyologie en France au début du XIX^{e} siècle. L'Histoire naturelle des Poissons de Cuvier et Valenciennes. Bulletin du Muséum national d'Histoire naturelle (4) 12: 1–142.

Becking JH (1989) Henri Jacob Victor Sody (1892–1959). His life and work. A biographical and bibliographical study. E.J. Brill, Leiden, viii + 272 pp.

Benda P, Hanák V, Červený J (2011) Bats (Mammalia: Chiroptera) of the Eastern Mediterranean and Middle East. Part 9. Bats from Transcaucasia and West Turkestan in the collection of the National Museum, Prague. Acta Societatis Zoologicae Bohemicae 75: 159–222.

Beolens B, Watkins M, Grayson M (2009) The Eponym Dictionary of Mammals. The John Hopkins University Press, Baltimore, 573 pp.

Bergmans W (1975) A new species of Dobsonia Palmer, 1898 (Mammalia, Megachiroptera) from Waigeo, with notes on other members of the genus. Beaufortia 23 (295): 1−13.

Bergmans W (1978) On Dobsonia Palmer 1898 from the Lesser Sunda Islands (Mammalia: Megachiroptera). Senckenbergiana-Biologica 59(1/2): 1−18.

Bergmans W (1980) A new fruit bat of the genus *Myonycteris* Matschie, 1899, from eastern Kenya and Tanzania (Mammalia, Megachiroptera). Zoologische Mededelingen Leiden 55: 171–181.

Bergmans W (1988) Taxonomy and biogeography of African fruit bats (Mammalia, Megachiroptera). 1. General introduction; material and methods; results: the genus *Epomophorus* Bennett, 1836. Beaufortia 38(5): 75–146.

Bergmans W (1990) Taxonomy and biogeography of African fruit bats (Mammalia, Megachiroptera). 3. The genera *Scotonycteris* Matschie, 1894, *Casinycteris* Thomas, 1910, *Pteropus* Brisson, 1762, and *Eidolon* Rafinesque, 1815. Beaufortia 40(7): 111–177.

Bergmans W (1997) Taxonomy and biogeography of African fruit bats (Mammalia, Megachiroptera). 5. The Genera *Lissonycteris* Andersen, 1912, *Myonycteris* Matschie, 1899 and *Megaloglossus* Pagensteher, 1885. Beaufortia 47(2): 11–90.

Bergmans W (2001) Notes on distribution and taxonomy of Australasian bats. I. Pteropodinae and Nyctimeninae (Mammalia, Megachiroptera, Pteropodidae). Beaufortia 51: 119–152.

Bergmans W (2011) An annotated list of mammal type specimens in the collection of the former Zoological Museum of the University of Amsterdam (1890–2010). Zoologische Mededelingen: 835–848.

Bergmans W, Rozendaal FG (1982) Notes on *Rhinolophus* Lacépède, 1799 from Sulawesi, Indonesia, with the description of a new species (Mammalia, Microchiroptera).— Bijdragen tot de dierkunde 52 (2): 169–174.

Bergmans W, Rozendaal FG (1988) Notes on collections of fruit bats from Sulawesi and some off-lying islands (Mammalia, Megachiroptera). Zoologische Verhandelingen Leiden 248: 1–74.

Bergmans W, Sarbini S (1985) Fruit Bats of the genus Dobsonia Palmer, 1898 from the Islands of Biak, Owii, Numfoor and Yapen, Irian Java (Mammalia, Megachiroptera). Beaufortia 34(6): 181–189.

Bergmans W, Van Bree PJH (1986) On a collection of bats and rats from the Kangean Islands, Indonesia (Mammalia: Chiroptera and Rodentia). Zeitschrift für Säugetierkunde 51: 329–344.

Bergmans W, Van Strien NJ (2004) Systematic notes on a collection of bats from Malawi. I. Megachiroptera: Epomophorinae and Rousettinae (Mammalia, Chiroptera). Acta Chiropterologica 6(2): 249–268. DOI: http://dx.doi.org/10.3161/001.006.0205.

Best TL (2018) Family Erinaceidae (Hedgehogs and Gymnures). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 8. Insectivores, Sloths and Colugos. Lynx Editions, Barcelona, 288–331.

Bianki V (1917) Предварительныя заметки о летучихъ мышахъ (Chiroptera) Россіи [Preliminary notes on bats (Chiroptera) of Russia]. Ežegodnik Zoologičeskago Muzeâ Akademii Nauk 21: 73−82.

Bianucci G, Landini W (2002) A new short-rostrum odontocete (Mammalia: Cetacea) from the middle Miocene of the eastern Netherlands. Beaufortia 52(11): 187−196.

Blasius JH (1853) Beschreibung von zweier neuer deutscher Fledermausarten. Archiv für Naturgeschichte 19(1): 35−57.

Blyth (1842) The Curator read his Report for the Month of April 1842, as follows: [...] Mammalia. The journal of the Asiatic Society of Bengal 11(1): 444–456.

Boddaert P (1785) Elenchus animalium. Vol. I. Sistens Quadrupedia huc usque nota, eorumque varietates. Ad ductum Naturae, quantum fieri potuit disposita. C.R. Hake, Rotterdam, xxxviii + 174 pp.

Boie H (1828) Uittreksels uit brieven van Heinrich Boie van Java aan H. Schlegel, Conservator Animalium Vertebratorum aan ’s Rijks Museum te Leyden. Bijdragen tot de Natuurkundige Wetenschappen 3 (1): 231–252.

Boie H (1832) Briefe von Heinrich Boie geschrieben aus Ostindien und auf der Reise dahin. Neues staatsbürgerliches Magazin mit besonderer Rücksicht auf die Herzogthümer Schleswig, Holstein und Lauenburg 1: 126–218.

Boie H (1833) Briefe von Heinrich Boie geschrieben aus Ostindien und auf der Reise dahin. (Beschluß von No. IV. im vorigen Hefte.). Neues staatsbürgerliches Magazin mit besonderer Rücksicht auf die Herzogthümer Schleswig, Holstein und Lauenburg 1: 440–500.

Bradley JC (1967) The Hemprich-Ehrenberg Expedition to Egypt and Asia Minor of 1820–25. Deutsche Entomologische Zeitschrift 15 (I/III): 107–109.

Brongersma LD (1935) Notes on some recent and fossil cats, chiefly from the Malay Archipelago. Zoologische Mededeelingen Leiden 18: 1–89 [pls I–XI].

Brongersma LD (1941) On the remains of carnivora from cave deposits in Java and Sumatra, with notes on Recent specimens : I. Zoologische Mededeelingen Leiden 23 (8): 114–148.

Brookes J (1828–1830) Brookesian Museum: The Museum of Joshua Brookes […] Consists of a Collection of Anatomical & Zoological Preparations, Volumes 1–2. Gold and Walton, London, 20 pp.

Burgin CJ, Colella JP, Kahn PL, Upham NS (2018) How many species of mammals are there? Journal of Mammalogy 99(1): 1–14.

Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher TE, Sechrest W (Eds)(2020) Illustrated Checklist of the Mammals of the World. Vol. 1–2. Lynx Editions, Barcelona.

Burgin CJ, He K, Haslauer R, Sheftel, I, Jenkins PD, Ruedi M, Hintsche S, Motokawa M, Hinckley A, Hutterer R (2020) Family Soricidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 22–77.

Büttikofer J (1888) Zoological researches in Liberia. A list of birds, collected by the author and Mr. F.X. Stampfli during their last sojourn in Liberia. Notes from the Leyden Museum 10: 59–106 [pl. 5].

Cantraine F (1845) Notice sur une nouvelle espèce du genre *Thyroptera* Spix par F. Cantraine, membre de l'académie. Bulletins de l'Académie royale des sciences, des lettres et des beaux-arts de Belgique 12: 489–495 [pl. 5].

Chasen FN (1939) Four new mammals from Java. Treubia 17: 185–188.

Christiansen P (2009) Neotype of *Neofelis diardi* (Mammalia: Carnivora: Felidae). Zootaxa 2110: 58–68.

Corbet GB (1978) The mammals of the Palaearctic Region: a taxonomic review. British Museum (Natural History), London / Cornell University Press, Ithaca, 314 pp.

Corbett GB, Hill JE (1992) The mammals of the Indomalay region: a systematic review. Natural History Museum Publications, Oxford University Press, Oxford, vii + 488 pp.

Cranbrook Earl of, Smeenk C, Lenglet G (2007) The Henrici collection of Bornean mammals at the Royal Belgian Institute for Natural Sciences, with observations on the names Mustela Henrici Schinz, 1845 and Mustela Henricii Westerman, 1851. Bulletin de l'Institut Royal des Sciences Naturelles de Belgique 77: 5–22.

Cretzschmar PJ (1826–1828) Atlas zu der Reise im nördlichen Afrika von Eduard Rüppell. Säugethiere. Heinrich Ludwig Brönner, Frankfurt am Main, 78 pp. [30 pls].

Csorba G, Ujhelyi P, Thomas N (2003) Horseshoe bats of the world (Chiroptera: Rhinolophidae). Alana Books, Bishop's Castle, xxxii + 160 pp.

Csorba G, Smeenk C, Lee BPY-H (2016) The identity of Vespertilio oreias Temminck, 1840 – solving a taxonomic puzzle. Zootaxa 4205 (6): 564–570. DOI:10.11646/zootaxa.4205.6.4.

Cuvier F (1826) In: Geoffroy Saint-Hilaire É, Cuvier F. Histoire naturelle des mammifères : avec des figures originales, coloriées, dessinées d'après des animaux vivans. Tome 5. A. Belin, Paris, 61 pls.

Cuvier G (1823) Recherches sur les ossemens fossiles, où l'on rétablit les caractères de plusieurs animaux dont les révolutions du globe ont détruit les espèces. Nouvelle édition, entièrement refondue, et considérablement augmentée. Tome quatrième, contenant les ruminans et les carnassiers fossiles. G. Dufour et E. d'Ocagne, Paris/Amsterdam, 514 pp. [34 pls].

Cuvier G (1830) Rapport fait à l'Académie royale des Sciences, sur les collections rapportées récemment de la mer des Indes par M. Dussumier, de Bordeaux. Annales des Sciences Naturelles, comprenant la physiologie animale et végétale, l'anatomie comparée des deux règnes, la zoologie, la botanique, la minéralogie, et la géologie 21: 458–468.

D'Alton E (1823) Die Skelete der Wiederkauer, abgebildet und verglichen. In: Vergleichende Osteologie von H. Pander und Ed. d'Alton. Erste Abtheilung: Osteologie der Säugethiere. Vol. 1 (4). Bonn, Eduard Weber, 11 pp. [8 pls].

D'Orbigny AD (1847) Voyage en Amérique méridionale. Mammifères Vol. 4 (2). Bertrand, Paris, 32 pp.

D'Orbigny AD (1835–1847) Voyage en Amérique méridionale. Atlas Vol. 9. Bertrand, Paris, 32 pls.

Dagg AI (1971) Giraffa camelopardalis. Mammalian Species 5: 1–8.

Dammerman KW (1940) On the Indo-Australian Weasels with the description of a new Species from Sumatra. Temminckia 5: 266–272 [pl. XV].

De Avila Pires FD (1965) The type specimens of Brazilian mammals collected by Prince Maximilian zu Wied. American Museum Novitates 2209: 1–21.

De Beaux O (1924) Beitrag zur Kenntniss der Gattung Potamochoerus Gray. Zoologische Jahrbücher. Abteilung für Systematik, Geographie und Biologie der Tiere 47: 379–504.

De Freycinet L (1824) Voyage autour du monde, entrepris par ordre du Roi,….. exécuté sur les corvettes de S.M. l'Oranie et la Physicienne, pendant les années 1817, 1818, 1819 et 1820. Histoire naturelle: zoologie. Pillet Aîné, Paris, 96 pls.

De Freycinet L (1829) Voyage autour du monde, entrepris par ordre du Roi,….. exécuté sur les corvettes de S.M. l'Oranie et la Physicienne, pendant les années 1817, 1818, 1819 et 1820. Historique. Vol. 2 (1). Pillet Aîné, Paris, 1–515.

De Freycinet L (1839) Voyage autour du monde, entrepris par ordre du Roi,….. exécuté sur les corvettes de S.M. l'Oranie et la Physicienne, pendant les années 1817, 1818, 1819 et 1820. Historique. Vol. 2 (2). Pillet Aîné, Paris, 517–916.

Deméré TA (2014) Family Balaenopteridae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 280–283.

Der Kinderen FH (1864) 4. De sekretaris stelt bekend… Natuurkundig Tijdschrift voor nederlandsch Indië 27: 423, 440, 445.

Desmarest AG (1816) Le Chat de Java, Felis javanensis Nob. Nouveau dictionnaire d'histoire naturelle, appliquée aux arts, à l'agriculture, à l'économie rurale et domestique, à la médecine. Tome 6. Deterville, Paris, 570 pp.

Desmarest AG (1822) Mammalogie ou description des espèces de mammifères. Seconde partie, contenant les ordres des rongeurs, des édentés, des pachydermes, des ruminans et des cétacés. M^{me} Veuve Agasse, Paris, viii + 277–556.

Dickinson EC (2005) Some bibliographical findings on Notes from the Leyden Museum. Zoologische Mededelingen Leiden 79, 2(1): 1–7.

Dickinson EC, Lebossé A (2018) A study of d'Orbigny's "Voyage dans l'Amerique Meridionale" V. Necessary corrections to data from the "Index Animalium". Zoological Bibliography 5(5): 275–292.

Dieterlen F, Turni H, Marquart K (2013) Type specimens of mammals in the collection of the Museum of Natural History Stuttgart. Stuttgarter Beiträge zur Naturkunde A, Neue Serie 6: 291–303.

Dobson GE (1878) Catalogue of Chiroptera in the collection of the British Museum. The Trustees of the British Museum, London, xlii + 567 pp. [30 pls].

Duncan FM (1937) On the Dates of Publication of the Society's "Proceedings,"1859–1926. Proceedings of the Zoological Society of London 1937. Vol. 107: 71–77.

Eger JL (2008) Family Molossidae P. Gervais, 1856. In: Gardner AL (Ed) Mammals of South America Vol. 1. Marsupials, Xenarthrans, Shrews and Bats. Chicago, The University of Chicago Press, 399–439.

Ehrenberg CG (1828) Symbolae Physicae seu Icones et Descriptiones corporum naturalium novorum aut minus cognitorum quae ex itineribus per Libyam Aegyptum Nubiam Dongalam Syriam Arabiam et Habessiniam... Pars Zoologica I. [Mammalia]. Berlin, ex Officina Academica, [unpaginated].

Ellerman JR, Morrison-Scott TCS (1951) Southern African mammals 1758 to 1951 : a reclassification. The Trustees of the British Museum, London, 810 pp.

Ellerman JR, Hayman RW, Morrison-Scott TCS (1952) Checklist of Palaearctic and Indian mammals 1758 to 1946. The Trustees of the British Museum, London, 363 pp.

Elliot DG (1882) A monograph of the Felidae : or family of the cats. London, xvi + 108 pp. [43 pls].

Eversmann E (1840) Mittheilungen ueber einige neue und einige weniger gekannte Säugethiere Russlands. Bulletin de la Société impériale des naturalistes de Moscou 13: 3–59.

Fennessy J, Bidon T, Reuss F, Kumar V, Elkan P, Nilsson MA, Vamberger M, Fritz U, Janke A (2016) Multi-locus Analyses Reveal Four Giraffe Species Instead of One. Current Biology 26(18): 2543–2549. https://doi.org/10.1016/j.cub.2016.07.036.

Finsch O (1881) Ornithological letters from the Pacific. The Ibis, a quarterly journal of ornithology (4) 5: 102–115.

Finsch O (1899) Systematische Uebersicht der Ergebnisse seiner Reisen und schriftstellerischen Thätigkeit (1859–1899). Mit Anmerkung und Anhang: Auszeichnungen. R. Friedländer & Sohn, Berlin, 153 pp.

Fischer JB (1829). Addenda, Emendanda et Index ad Synopsis Mammalium. J.G. Cotta, Stuttgart, 752 pp.

Flannery T (1995) Mammals of the South-West Pacific & Moluccan Islands. Reed Books, Chatswood NSW, 464 pp.

Flower WH (1865) Notes on the skeletons of whales in the principal museums of Holland and Belgium, with descriptions of two species apparently new to science. Proceedings of the scientific meetings of the Zoological Society of London for the year 1864: 384–420.

Fontaine B, Perrard A, Bouchet P (2012) 21 years of shelf life between discovery and description of new species. Current Biology 22 (22): R943-R944. https://doi.org/10.1016/j.cub.2012.10.029.

Fransen CHJM, Holthuis LB, Adema JPHM (1997) Type-catalogue of the Decapod Crustacea in the collections of the Nationaal Natuurhistorisch Museum, with appendices of pre-1900 collectors and material. Zoologische Verhandelingen Leiden 311: i–xvi + 1–344.

Funk H (2015) A re-examination of C.J. Temminck's sources for his descriptions of the extinct Japanese wolf. Archives of natural history 42(1): 51–65.

Garbino GST, Nogueira MR (2017) On the mammals collected by Friedrich Sellow in Brazil and Uruguay (1814–1831), with special reference to the types and their provenance. Zootaxa 4221(2): 172–190.

Garshelis DL (2020) Family Ursidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 434–437.

Gaubert P (2009) Family Prionodontidae (Linsangs). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 1. Carnivores. Lynx Edicions, Barcelona, 170–173.

Geoffroy Saint-Hilaire É (1803) Catalogue des mammifères du Muséum National d'Histoire Naturelle. [Muséum National d'Histoire naturelle], Paris, 272 pp.

Geoffroy Saint-Hilaire É (1806) Mémoire sur le genre et les espèces de vespertilion, l'un des genres de la famille des chauve-souris. Annales du Muséum d'Histoire naturelle 8: 187–205 [pls 46–48].

Geoffroy Saint-Hilaire I (1824) Sur le Protèle de Lalande (*Protèles Lalandii*), type du nouveau genre *Protèle*. Bulletin des sciences, par la Société philomathique de Paris. Année 1824: 139–140.

Geoffroy Saint-Hilaire I (1837) Notice sur deux nouveaux genres de Mammifères carnassiers, les Ichneumies, du continent africain, et les Galidies, de Madagascar. Compte Rendu des séances de l'Académie des Sciences 5: 578–582.

Gerrard (1862) Catalogue of the bones of Mammalia in the Collection of the British Museum. The Trustees [of the British Museum], London, iv + 296 pp.

Giannini NP, Van Cakenberghe V, Burgin CJ, Tsang SM, Lavery TH, Hintsche S, Bonacorso FJ, Almeida FC, O'Toole BP (2020) Family Pteropodidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 88–113.

Gijzen A (1938) 's Rijks Museum van Natuurlijke Historie 1820–1915. W.L. & J. Brusse's Uitgeversmaatschappij, Rotterdam, xii + 335 pp. [pls].

Gojobori J, Arakawa N, Xiaokaiti X, Matsumoto Y, Matsumura S, Hongo H, Ishiguro N, Terai Y (2024) . Japanese wolves are most closely related to dogs and share DNA with East Eurasian dogs. Nature Communications 15, 1680. doi: https://doi.org/10.1101/2021.10.10.463851.

Goodman SM, Fratpietro S, Tortosa P (2020) Insight into the identity and origin of *Scotophilus borbonicus* (E. Geoffroy, 1803). Acta Chiropterologica 22(1): 41–47.

Goodwin GG (1963) American Bats of the Genus Vampyressa with the Description of a new Species. American Museum Novitates 2125: 1–24.

Goodwin RE (1979) The bats of Timor: systematics and ecology. Bulletin of the American Museum of Natural History 163(2): 73–122.

Grandidier A (1867) Mammifères et oiseaux nouveaux découverts à Madagascar et décrits par M. Alfred Grandidier. Revue et Magasin de Zoologie pure et appliquée et de Sériciculture comparée (2) 19: 84–88.

Gray JE (1828) Spicilegia Zoologica; or original figures and short systematic descriptions of new and unfigured animals. Part 1. Treüttel, Würtz and Co. & W. Wood, London, 8 pp. [6 pls].

Gray JE (1830) Spicilegia Zoologica; or original figures and short systematic descriptions of new and unfigured animals. Part 2. Treüttel, Würtz and Co. & W. Wood, London, 12 pp.

Gray JE (1832) On the Family of Viverridae and its generic Subdivisions; with an enumeration of the Species of Paradoxurus, and Characters of several new ones. Proceedings of the Committee of Science and Correspondence of the Zoological Society of London 2: 63–68.

Gray JE (1843) List of the specimens of Mammalia in the collection of the British Museum. The Trustees [of the British Museum], London, xxviii + 216 pp.

Gray JE (1846a) Catalogue of the specimens and drawings of Mammalia and birds of Nepal and Thibet, presented by B. H. Hodgson, Esq. to the British Museum. The Trustees [of the British Museum], London, xi + 156 pp.

Gray JE (1846b) On the cetaceous animals. In: Richardson J, Gray JE (Eds). The zoology of the voyage of H.M.S. Erebus & Terror, under the command of Captain Sir James Clark Ross, R.N., F.R.S., during the years 1839 to 1843. 1, Mammalia. E.W. Janson, London, 13–53 [pls 1–37].

Gray JE (1846c) XIX. – Description of the Species of *Cephalophus* (H. Smith) in the Collection of the British Museum. Annals of Natural History; Zoology, Botany, and Geology [ser. 1] 18: 162–169.

Gray JE (1850) The Zoology of the voyage of H.M.S. Samarang, under the command of Captain Sir Edward Belcher, C.B., F.R.A.S., F.G.S., during the years 1843–1846. Vertebrata. I, Mammalia. Reeve and Benham, London, 43 pp. [8 pls].

Gray JE (1851) Synopsis of the species of Antelopes and Strepsiceres, with description of some new species. Proceedings of the Zoological Society of London 18: 111–146 [pl. XX].

Gray JE (1860) Description of a new species of cuscus (C. ornatus) from the island of Batchian, with a list of the Mammalia collected in that island by Mr. A. R. Wallace. Proceedings of the Zoological Society of London 28: 1–5 [pl. LXXIV].

Gray JE (1864) Notes on the whalebone-whales; with a synopsis of the species. The Annals and Magazine of Natural History, including Zoology, Botany, and Geology (3) 14: 345–353.

Gray JE (1866) Catalogue of Seals and Whales in the British Museum. Second edition. The Trustees [of the British Museum], London, vii + 137 pp.

Gray JE (1867) Notice of Lutronectes whiteleyi, an Otter from Japan. Proceedings of the scientific meetings of the Zoological Society of London for the year 1867: 180–182.

Gray JE (1868) Notes on the Skulls of the Species of Dogs, Wolves, and Foxes (Canidae) in the Collection of the British Museum. Proceedings of the scientific meetings of the Zoological Society of London for the year 1868: 492–525.

Gray JE (1870) Catalogue of monkeys, lemurs and fruit-eating bats in the collection of the British Museum. The Trustees [of the British Museum], London, viii + 137 pp.

Gray JE (1873) On the Skulls of Japanese Seals, with the Description of a New Species, *Eumetopias elongatus*. Proceedings of the scientific meetings of the Zoological Society of London for the year 1873: 776–779.

Grevé C (1895) Die geographische verbreitung der jetzt lebenden Raubthiere. Nova acta Academiae Caesareae Leopoldino-Carolinae Germanicae Naturae Curiosorum 63: 20−280 [21 pls].

Groves CP (1969) Systematics of the Anoa (Mammalia, Bovidae). Beaufortia 17 (223): 1–12.

Groves CP (1980) Notes on the systematics of babyrousa (Artiodactyla, Suidae). Zoologische Mededelingen 55(3): 29–46 [4 pls].

Groves CP (1981) Ancestors of the pigs: taxonomy and phylogeny of the genus *Sus*. Technical Bulletin, Department of Prehistory, Research School of Pacific Studies, Australian National University 3: 1–96.

Groves CP (1983) Pigs East of the Wallace Line. Journal de la Société des Océanistes 77: 105–119.

Groves CP, Grubb P (1982) The species of Muntjac (Genus *Muntiacus*) in Borneo: unrecognised sympatry in tropical deer. Zoologische Mededelingen 56 (17): 204–216 [4 pls].

Groves CP, Leslie DM (2011) Family Bovidae (Hollow-horned ruminants). In: Wilson DE, Lacher TE, Mittermeier RA (Eds). Handbook of the Mammals of the World. Vol. 2. Hoofed Mammals. Lynx Edicions, Barcelona, 444–779.

Groves CP, Smeenk C (1978) On the type material of *Cervus Nippon* Temminck, 1836: with a revision of Sika deer from the main Japanese Islands. Zoologische Mededelingen 53 (2): 11–28.

Groves CP, Leslie DM, Huffman BA, Valdez R, Habibi K, Weinberg PJ, Burton JA, Jarman PJ, Robichaud WG (2020) Family Bovidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 322–375.

Grubb P (2005) Order Artiodactyla. In: Wilson DE, Reeder DM (Eds). Mammal species of the world. A taxonomic and geographic reference. Third edition. Vol. 1. The Johns Hopkins University Press, Baltimore, 637–722.

Gunn M, Codd LE (1981) Introductory volume to the Flora of South Africa. Botanical exploration of southern Africa. An illustrated history of early botanical literature on the Cape flora. Biographical accounts of the leading plant collectors and their activities in southern Africa from the days of the East India Company until modern times. A.A. Balkema, Cape Town, xiv + 400 pp.

Hamilton Smith C (1840) The natural history of Dogs. Canidae or genus Canis of authors. Including also the genera Hyæna and Proteles. In: Jardine W (Ed.). The Naturalist's Library. Vol. II.. W.H. Lizars, Edinburgh, 303 pp. [30 pls].

Hardjasasmita HS (1987) Taxonomy and phylogeny of the Suidae (Mammalia) in Indonesia. Scripta Geologica 85: 1–68.

Harper F (1940) The nomenclature and type localities of certain Old World mammals. Journal of Mammalogy 21: 322–332.

Harrison DL (1963) Observations on the North African serotine bat, Eptesicus serotinus isabellinus (Temminck, 1840) (Mammalia: Chiroptera). Zoologische Mededelingen 38 (12): 207–212.

Hassenstein B (1885) Friedrich Bohndorffs Reisen in Zentralafrika, 1874 bis 1883. Dr. A. Petermanns Mitteilungen aus Justus Perther's Geographischer Anstalt 31: 339–368.

Hempel E, Bibi F, Faith JT, Brink JS, Kalthoff DC, Kamminga P, Paijmans JLA, Westbury MV, Hofreiter M, Zachos FE (2021) Identifying the true number of specimens of the extinct blue antelope (*Hippotragus leucophaeus*). Scientific Reports 11. https://doi-org.naturalis.idm.oclc.org/10.1038/s41598-020-80142-2.

Hershkovitz P (1966) Catalog of living whales. United States National Museum Bulletin 246: i–viii + 1–259.

Heude P-M (1884) Catalogue des cerfs tachetés (sikas) du musée de Zi-Ka-Wei ou notes préparatoires à la monographie de ce groupe. Mémoires concernant l'histoire naturelle de l'Empire chinois par des pères de la Compagnie de Jésus 1: 1–12.

Heude P-M (1898) Catalogue révisé des cerfs tachetés (sika), Japon: groupe des Goto. Mémoires concernant l'histoire naturelle de l'Empire chinois par des pères de la Compagnie de Jésus 4: 90–111.

Hill JE (1961) Indo-Australian bats of the genus *Tadarida*. Mammalia 25: 29–56.

Hill JE (1963) A revision of the genus *Hipposideros*. Bulletin of the British Museum (Natural History), Zoology 11: 1–129.

Hill JE (1971) The status of *Vespertilio brachypterus* Temminck, 1840 (Chiroptera, Vespertilionidae). Zoologische Mededelingen Leiden 45(12): 139–146.

Hill JE (1980) The status of *Vespertilio borbonicus* E. Geoffroy, 1803 (Chiroptera, Vespertilionidae). Zoologische Mededelingen Leiden 55: 287–295.

Hill JE (1983) Bats (Mammalia: Chiroptera) from Indo-Australia. Bulletin of the British Museum (Natural History) Zoology 45: 103–208.

Hinckley A, Camacho-Sanchez M, Chua MAH, Ruedi M, Lunde D, Maldonado JE, Omar H, Leonard JA, Hawkins MTR (2023) An integrative taxonomic revision of lesser gymnures (Eulipotyphla: *Hylomys*) reveals five new species and emerging patterns of local endemism in Tropical East Asia. Zoological Journal of the Linnean Society 20: 1–33. https://doi.org/10.1093/zoolinnean/zlad177.

Hodgson BH (1831a) VI On the Bubaline Antelope. (Nobis) Gleanings in Science 1833: 122–123.

Hodgson BH (1831b) V. Contributions in Natural History. Gleanings in Science 3(34): 320–324.

Hodgson BH (1832a) A letter was read, addressed to Mr. Vigors by B.H. Hodgson Esq. Proceedings of the Zoological Society of London 1(8): 105.

Hodgson BH (1832b) On the Mammalia of Nipal. The Journal of the Asiatic Society of Bengal 1(8): 335–349.

Hodgson BH (1833) Description of the Wild Dog of the Himalaya. Asiatic Researches, 18(2): 221–237.

Hodgson BH (1835) VIII. Synopsis of the Vespertilionidae of Nipal. The Journal of the Asiatic Society of Bengal 4: 699–701.

Hodgson BH (1836) VI. Synoptical Description of Sundry New Animals, enumerated in the Catalogue of Nipálese Mammals. The Journal of the Asiatic Society of Bengal 5: 231–238.

Hodgson BH (1837) On a new genus of the Plantigrades. The Journal of the Asiatic Society of Bengal 6(2): 560–565.

Hodgson BH (1840) On the Common Hare of the Gangetic Provinces, and of the Sub-Hemalaya ; with a slight notice of a strictly Hemalayan species. The Journal of the Asiatic Society of Bengal 9(2): 1183–1186.

Hodgson BH (1841) On a new species of Lagomys inhabiting Nepal, (with Plate) – Lagomys Nepalensis Nob. The Journal of the Asiatic Society of Bengal 10(2): 854–855, pl.

Hodgson BH (1842a) On a new Species of Prionodon. *P. Pardicolor* nobis. Calcutta Journal of Natural History: and Miscellany of the Arts and Sciences in India 2: 57–60.

Hodgson BH (1842b) Classified Catalogue of Mammals of Nepal, corrected to end of 1840, first printed in 1832. Calcutta Journal of Natural History: and Miscellany of the Arts and Sciences in India 2: 212–221.

Hodgson BH (1844) Classified Catalogue of Mammals of Nepal, (corrected to end of 1841, first printed in 1832). Calcutta Journal of Natural History: and Miscellany of the Arts and Sciences in India 4: 284–294.

Hodgson BH (1846) Description of a new species of Tibetan Antelope, with plates. The Journal of the Asiatic Society of Bengal 15: 334–343.

Hodgson BH (1848) Notice of the Mammals of Tibet, with Descriptions and plates of some new Species. The Journal of the Asiatic Society of Bengal 11(1): 275–289.

Hoffmannsegg (1807) X. Beschreibung vier afferartiger Thiere aus Brasilien. Der Gesellschaft Naturforschender Freunde zu Berlin Magazin für die neuesten Entdeckungen in der gesammten Naturkunde 1(1): 83–104.

Hollister N (1918) The earliest technical name for the Portuguese Ibex. Proceedings of the Biological Society of Washington 31: 93.

Holthuis LB (1968) Biografische notities betreffende verzamelaars voor het Rijksmuseum van Natuurlijke Historie te Leiden. I. Hendrik Severinus Pel (1818–1876). Zoologische Bijdragen Leiden 10: 1–32.

Holthuis LB, Sakai T (1970) Ph.F. von Siebold and Fauna Japonica. A history of early Japanese zoology. Academic Press of Japan, Tokyo, 323 pp. [pls].

Hooijer DA (1950) Man and other mammals from Toalian sites in south-western Sulawesi. Verhandelingen der Koninklijke Nederlandsche Akademie van Wetenschappen, Afd. Natuurkunde, Tweede Sectie 46 (2): 1–165.

Hooijer DA (1956) The valid name of the Banteng: Bibos javanicus (D'Alton). Zoologische Mededelingen 34 (14): 223–226.

Horsfield T (1823) Zoological researches in Java, and the neighbouring islands. Kingsbury, Padbury & Allen, London, unpaginated sections 8 pp. [72 pls].

Hose C (1893) A descriptive account of the mammals of Borneo. Edward Abbott, London, 78 pp. [3 pls].

Hummel HC (1994) (Ed) Johan August Wahlberg Travel Journals (and some letters) South Africa and Namibia/Botswana, 1838-1856. Van Riebeeck Society, Cape Town, second series 23, 249 pp.

Husson AM (1955) Note on the cotypes of Vespertilio harpia Temminck, 1840 (Mammalia, Chiroptera, genus Harpiocephalus). Zoologische Mededelingen Leiden 33(16): 121–125.

Husson AM (1962) The bats of Suriname. Zoologische Verhandelingen Leiden 58: 1–282 [pls 1–30].

Husson AM (1963) On Blarina pyrrhonota and Echimys macrourus: Two mammals incorrectly assigned to the Suriname fauna. Studies on the Fauna of Suriname and other Guyanas 5: 34–41 [pls 1,2].

Husson AM, Holthuis LB (1955) The dates of publication of "Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen" edited by C.J. Temminck. Zoologische Mededelingen Leiden 34: 17–24.

Husson AM, Holthuis LB (1969) On the type of Antilope leucophaea Pallas, 1766, preserved in the collection of the Rijksmuseum van Natuurlijke Historie, Leiden. Zoologische Mededelingen Leiden 44: 147–157 [pls 1–6].

Husson AM, Holthuis LB (1974) Physeter macrocephalus Linnaeus, 1758, the valid name for the sperm whale. Zoologische Mededelingen Leiden 48: 205–217 [pls 1–3].

Husson AM, Rossiter SJ, Csorba G (2019) Family Rhinolophidae (Horseshoe Bats). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 9. Bats. Lynx Editions, Barcelona, 260–334.

Hutterer R (2005) Order Soricomorpha. In: Wilson DE, Reeder DM (Eds). Mammal species of the world. A taxonomic and geographic reference. Third edition. Vol. 1. The Johns Hopkins University Press, Baltimore, 220–311.

Ibáñez C, Juste J (2019) Family Miniopteridae (Long-Fingered bats). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 9. Bats. Lynx Editions, Barcelona, 647–709.

ICZN (1983) Opinion 1256 *sorex dsinezumi* Temminck, 1843 (Mammalia, Insectivora): ruled to be a correct original Spelling. The Bulletin of Zoological Nomenclature 40: 147–148.

Imaizumi Y (1970) Systematic status of the extinct Japanese wolf, Canis hodophilax. Part 1. Identification of the species. Part 2. Similar relationship of hodophilax among the species of the genus Canis. Journal of the mammalogical society of Japan 5: 27–32, 62–66.

Imaizumi Y, Yoshiyuki M (1989) Taxonomic status of the Japanese otter (Carnivora, Mustelidae), with a description of a new species. Bulletin of the National Science Museum, Series A (Zoology) 15(3): 177–188.

Jackson JA, Steel DJ, Beerli P, Congdon BC, Olavarría C, Leslie MS, Pomilla C, Rosenbaum H, Baker CS (2014) Global diversity abd oceanic divergence of humpback whales (Megaptera novaeangliae). Proceedings of the Royal Society B 281, 20133222: 1–10. http://dx.doi.org/10.1098/rspb.2013.3222.

Jackson S, Groves C (2015) Taxonomy of Australian Mammals. CSIRO publishing, Clayton Sound, 512.

Jacobi A (1923) Zoologische Ergebnisse der Walter Stötznerschen Expeditionen nach Szetschwan, Osttibet und Tschili auf Grund der Sammlungen und Beobachtungen Dr. Hugo Weigolds. 2. Teil. Mammalia: 1. Säugetiere. Abhandlungen und Berichte der Museen für Tierkunde und Völkerkunde zu Dresden 16 (1): 1–22.

Jacobs HJ (2023) Heinrich Christian Macklot (20.10.1799–12.5.1832) und die Natuurkundige Commissie in Nierländisch Ostindien 1825–32. Sekretär 23(2): 18–51.

Jardine W (1835) The natural history of ruminating animals, containing deer, antelopes, camels, &c. Part I. In: The Naturalist's Library. Mammalia. Vol. III. Ruminantia. Part 1. W.H. Lizars, Edinburgh, xv + 230 pp. [33 pls].

Jennings AP, Veron G (2020) Family Viverridae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 408–414.

Jentink FA (1879a) On a new genus and species of bat from Celebes. Notes from the Royal Zoological Museum of the Netherlands at Leyden 1: 117–119.

Jentink FA (1879b) On a new bat, Taphozous Dobsoni, from Madagascar. Notes from the Royal Zoological Museum of the Netherlands at Leyden 1: 121–124.

Jentink FA (1879c) On a new bat, Nyctinomus Bemmeleni, from Liberia. Notes from the Royal Zoological Museum of the Netherlands at Leyden 1: 125–127.

Jentink FA (1879d) On the genus Galidia and its species. Notes from the Royal Zoological Museum of the Netherlands at Leyden 1: 131–136.

Jentink FA (1880) On Lepus salae a new African hare. Notes from the Leyden Museum 2: 57–58.

Jentink FA (1881) Description of a new African bat, Leiponyx büttikoferi. Notes from the Leyden Museum 3: 59–62.

Jentink FA (1882) Revision of the Manidae in the Leyden Museum. Notes from the Leyden Museum 4: 193–209.

Jentink FA (1885) On two re-discovered Antelopes. Notes from the Leyden Museum 7: 269–273 [pls 9–10].

Jentink FA (1887) Muséum d'Histoire Naturelle des Pays-Bas. Tome IX. Catalogue ostéologique des mammifères. E.J. Brill, Leiden, 359 pp. [12 pls].

Jentink FA (1888) Muséum d'Histoire Naturelle des Pays-Bas. Tome XII. Catalogue systématique des mammifères (rongeurs, insectivores, cheiroptères, édentés et marsupiaux). E.J. Brill, Leiden, 280 pp.

Jentink FA (1888a) Zoological researches in Liberia. A list of mammals, collected by J. Büttikofer, C.F. Sala and F.X. Stampfli, with biological observations. Notes from the Leyden Museum 10: 1–58 [pls 1–4].

Jentink FA (1888b) On the shrews from the Malayan Archipelago. Notes from the Leyden Museum 10: 161–167.

Jentink FA (1889a) On a new genus and a new species in the macroglossine-group of bats. Notes from the Leyden Museum 11: 209–212 [pl. 9].

Jentink FA (1889b) On a new shrew from the Indian Archipelago. Notes from the Leyden Museum 11: 213–214.

Jentink FA (1890a) Mammalia from the Malay archipelago. II. Rodentia, Insectivora, Chiroptera. In: M. Weber (ed.). Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien. Erster Band. E.J. Brill, Leiden, 115–130 [pls 8–11].

Jentink FA (1890b) On a collection of mammals from Billiton. Notes from the Leyden Museum 12: 149–230 [pl. 7, fig. 11–14].

Jentink FA (1892) Muséum d'Histoire Naturelle des Pays-Bas. Tome XI. Catalogue systématique des mammifères (singes, carnivores, ruminants, pachydermes, sirènes et cétacés). E.J. Brill, Leiden, 219 pp.

Jentink FA (1893) On a collection of bats from the West-Indies. Notes from the Leyden Museum 15: 278–283.

Jentink FA (1894) On a specimen of Herpestes semitorquatus Gray from Sumatra. Notes from the Leyden Museum 16: 210.

Jentink FA (1895) On two mammals from the Calamianes-islands. Notes from the Leyden Museum 17: 41–48.

Jentink FA (1897) Zoological results of the Dutch Scientific Expedition to Central Borneo. The Mammals. Notes from the Leyden Museum 19: 26–127 [pls 2, 3].

Jentink FA (1899) La fossane de Buffon, Fossa fossa (Schreber). Notes from the Leyden Museum 20: 243–248 [pl. 11].

Jentink FA (1900) The species of the Antelope-genus Pediotragus. Notes from the Leyden Museum 22: 33–43.

Jentink FA (1901a) On Cephalophus Silvicultor (Afzelius). Notes from the Leyden Museum 22: 179–187.

Jentink FA (1901b) The antelopes in the Leyden Museum. Notes from the Leyden Museum 23: 17–31.

Jentink FA (1902) Revision of the genera Macroglossus and Syconycteris and description of a new genus and species, Odontonycteris meijeri. Notes from the Leyden Museum 23: 131–142.

Jentink FA (1903) A new Bornean Herpestes. Notes from the Leyden Museum 23: 223–228.

Jentink FA (1904) On Kerivoula picta and description of a new Bat from Paramaribo. Notes from the Leyden Museum 24: 174–176.

Jentink FA (1905) Sus-studies in the Leyden Museum. Notes from the Leyden Museum 26: 155–195 [pls 2–14].

Jentink FA (1906) On a new antelope, Cephalophus Coxi, from north-western Rhodesia. Notes from the Leyden Museum 28: 117–119.

Jentink FA (1907) On a new Taphozous from Java. Notes from the Leyden Museum 29: 65–67.

Jentink FA (1910a) Chrysopteron bartelsii, novum genus et nova species, from Java. Notes from the Leyden Museum 32: 73–77.

Jentink FA (1910b) Description of a shrew from Surinam. Notes from the Leyden Museum 32: 167–168.

Jentink FA (1910c) Two undescribed shrews from Mount Pangerango, Java. Notes from the Leyden Museum 32: 197–198.

Jost A (2012) Joseph Peter Audebert: Der vergessene Madagaskarforscher. Dillingen: Geschichtswerkstatt Dillingen, 175 pp.

Jusoh WFA, Chua MAH, Bakker PAJ, Kamminga P, Weiler D, Rookmaaker K, Low MEY (2022) A historical specimen of the Fishing Cat, Prionailurus viverrinus (Bennett, 1833) (Carnivora, Felidae) from Singapore in the zoological collection of the Naturalis Biodiversity Center, Leiden. Zoosystematics and Evolution 98(1): 43–53. https://doi.org/10.3897/zse.98.76940

Kearney T, Van Cakenberghe V, Seamark E, Ndhlovu C, Cohen L (2008) Notes on the taxonomy and distribution of Eptesicus hottentotus (Chiroptera: Vespertilionidae) and reidentification of some museum voucher specimens. Annals of the Transvaal Museum 45: 127–134.

Keijl GO, Groenenberg DSJ, Nieman AM, Desjardins R, Gravendeel B (2019) Molecular identification of sei whales (Balaenoptera borealis) from the Netherlands. Lutra 62 (1): 3–11.

Keyserling A, Blasius IH (1839) Übersicht der gattungs- und Artcharaktere der europäischen Fledermäuse. Archiv für Naturgeschichte 5(1): 293–315.

King JE (1961) Notes on the Pinnipedes from Japan described by Temminck in 1844. Zoologische Mededelingen 27: 212–224 [pls 14–18].

Kitchener AC, Simo FT, Mugerwa B, Sanderson JG (2022) Evidence that Temminck described Felis aurata in 1825, not 1827. Archives of NaturalHistory 49(1): 78–85.

Kitchener AC, Breitenmoser-Würsten C, Eizirik E, Gentry A, Werdelin L, Wilting A, Yamaguchi N, Abramov AV, Christiansen P, Driscoll C, Duckworth JW, Johnson W, Luo S-J, Meijaard E, O'Donoghue P, Sanderson J, Seymour K, Bruford M, Groves C, Hoffmann M, Nowell K, Timmons Z, Tobe S (2017) A revised taxonomy of the Felidae. The final report of the Cat Classification Task Force of the IUCN/SSC Cat Specialist Group. Cat News Special Issue 11, 80 pp.

Kock D (1978a) A new fruit bat of the genus Rousettus Gray, 1821, from the Comoro Islands, Western Indian Ocean (Mammalia, Chiroptera). Proc. Fourth Int. Bat. Res.Conf.: 205–216.

Kock D (1978b) Lectotypus für Antilope ruficollis Hamilton Smith 1827 (Mammalia: Artiodactyla: Bovidae). Senckenbergiana biologica 59 (3–4): 151–154.

Kock D (2001) Identity of the African Vespertilio hesperida Temminck 1840 (Mammalia, Chiroptera, Vespertilionidae). Senckenbergiana biologica 81 (1–2): 277–283.

Kock D, Nader IA (1984) Tadarida teniotis (Rafinesque, 1814) in the W-Palaearctic and a lectotype for Dysopes rupelii Temminck, 1826 (Chiroptera: Molossidae). Zeitschrift für Säugetierkunde 49: 129–135.

Kohlbrugge JHF (1896) Bijdragen tot de natuurlijke geschiedenis van menschen en dieren. III Zoogdieren van Zuid-Oost Borneo. Natuurkundig tijdschrift voor Nederlandsch-Indië 55: 176–200.

Koju NP, Zeng Z, Zhang G, Huang X, Yao Z, Wang X, Hawkins MTR, Hinckley A, Flores MFC, Guo C, Li J, Maharjan D, Byanjankar S, Huang L, Yu W, Leng L, He K, Feijó A, Hua Y (2025) Revalidation of Manis aurita, based on integrative morphological and genomic evidence. bioRxiv preprint.07.05.663294; doi: https://doi.org/10.1101/2025.07.05.663294

Koller O (1929) Die Soriciden des zoologischen Museums in Buitenzorg auf Java. Treubia 11(3): 313–324.

Koopman KF (1993) Order Chiroptera. In: Wilson DE, Reeder DM (Eds) Mammal species of the world. A taxonomic and geographic reference. Second edition. Smithsonian Institution Press, Washington/London, 137–241.

Kuhl H, Van Hasselt JC (1822a) Uittreksels uit brieven van de Heeren Kuhl en van Hasselt, aan de Heeren C.J. Temminck, Th. van Swinderen en W. de Haan, geschreven in de straat Sunda, den 17den

December 1820 [en Buitenzorg 2 Maart 1821 en Buitenzorg, den 10den Junij 1821]. Algemeene Konst- en Letter-Bode, voor het jaar 1822: 82–88.

Kuhl H, Van Hasselt JC (1822b) Uittreksels uit een brief van de Heeren Kuhl en van Hasselt, aan Zijne Excellentie den Ministerie [sic] voor het openbaar Onderwijs, de Nationale Nijverheid en de Kolonien. Buitenzorg den 10 Augustus 1821 [met naschrift van Th. van Swinderen]. Algemeene Konst- en Letter-Bode, voor het jaar 1822: 149–153.

Kuiper K (1926) On a black variety of the Malay tapir (Tapirus indicus). Proceedings of the general meetings for scientific business of the Zoological Society of London 1926: 425–426 [pl. 1].

Kuroda N (1933a) A revision of the genus Pteropus found in the islands of the Riu Kiu Chain, Japan. Journal of Mammalogy 14: 312–316.

Kuroda N (1933b) Mammals collected in Java, Bali and Lombok. Journal of Mammalogy 14: 339–342.

Larivière S, Jennings AP (2020) Family Mustelidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 450–461.

Larson G, Dobney K, Albarella U, Fang M, Matisoo-Smith E, Robins J, Lowden S, Finlayson H, Brand T, Willerslev E, Rowley-Conwy P, Andersson L, Cooper A (2005) Worldwide phylogeography of wild boar reveals multiple centers of pig domestication. Science 307: 1618–1621. DOI: 10.1126/science.1106927.

Leach WH (1821) The Characters of seven Genera of Bats with foliaceous Appendages to the Nose. Transactions of the Linnean Society of London 13: 73–82.

Leche W (1884) On some species of Chiroptera from Australia. Proceedings of the Zoological Society of London IV: 49–54.

Lesson RP (1830–1832) Centurie zoologique, ou, Choix d'animaux rares, nouveaux ou imparfaitement connus : enrichi de planches inédites, dessinées d'après nature par M. Prêtre, gravées et coloriées avec le plus grand soin. F.G. Levrault, Bruxelles, x + 244 pp. [80 pls].

Lichtenstein H (1823) Verzeichniss der Doubletten des zoologischen Museums der Königl. Universität zu Berlin nebst Beschreibung vieler bisher unbekannter Arten von Säugethieren, Vögeln, Amphibien und Fischen. H. Lichtenstein, Berlin, 118 pp.

Lichtenstein H, Peters W (1853) Hr. Peters machte eine vorläufige Mittheilung über eine neue Antilope aus dem Nordosten von Africa. Bericht über die zur Bekanntmachung geeigneten Verhandlungen der Konigl.Preuss.Akademie der Wissenschaften zu Berlin aus dem Jahre 1853: 164.

Lichtenstein M, Peters W (1855) Über neue merkwürdige Säugethiere des Königlichen zoologischen Museums. Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin aus dem Jahre 1854: 81–100 [pl. 3].

Linnaeus C (1758) Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata. Laurentius Salvius, Holmiae, 823 pp.

Ludeking EWA (1862) Natuur- en geneeskundige topographische schets der residentie Agam. (westkust van Sumatra). Geneeskundig tijdschrift voor Nederlandsch Indië 9: 1–154.

Lydekker R, Blaine G (1941) Catalogue of the ungulate mammals in the British Museum (Natural History). Vol. III. Artiodactyla, families Bovidae, subfamilies aepicerotinae to Tragelaphinae (pala, saiga, gazelles, oryx group, bushbucks, kudus, elands, etc.), Antilocapridae (prongbuck), and Giraffidae (giraffes and okapi). The Trustees of the British Museum, London, xvi + 283 pp.

MacGillivray J (1860) Zoological notes from Aneiteum, New Hebrides. The Zoologist: a Popular Miscellany of Natural History 18: 7133–7142.

Maeda K (1982) Studies on the Classification of Miniopterus in Eurasia, Australia and Melanesia. Honyurui Kagaku (Mammalian science), suppl. 1: 1–176.

Matschie P (1894) Neue Säugethiere aus den Sammlungen der Herren Zenker, Neumann, Stuhlmann und Emin. Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin, Jahrgang 1894: 194–206.

Matschie P (1899) Die Fledermäuse des Berliner Museums für Naturkunde. 1. Lieferung. Die Megachiroptera des Berliner Museums für Naturkunde. Georg Reimer, Berlin, viii + 102 pp. [14 pls].

Mattioli S (2020) Family Cervidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 308–319.

Matsumural S, Terai Y, Hongoz H, Ishigurol N (2021) Analysis of the Mitochondrial Genomes of Japanese Wolf Specimens in the Siebold Collection, Leiden. Zoological Science 38(1): 60–66.

Mearns B, Mearns R (1988) Biographies for birdwatchers. The lives of those commemorated in Western Palearctic bird names. Academic Press, London/San Diego, xx + 490.

Mees GF (1957) Over het belang van Temminck's "Discours préliminaire" voor de zoologische nomenclatuur. Zoologische Mededelingen Leiden 35: 205–227.

Mees GF (1986) A list of the birds recorded from Bangka Island, Indonesia. Zoologische Verhandelingen Leiden 232: 1–176.

Meijaard E, D'Huart JP, Oliver WLR (2011) Family Suidae (Pigs). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 2. Hoofed Mammals. Lynx Edicions, Barcelona, 248–291.

Meijaard E, D'Huart JP, Oliver WLR (2020) Family Suidae (Pigs). In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 378–381.

Melville RV (1983) Opinion 1256. Sorex dsinezumi Temminck, 1843 (Mammalia, Insectivora): ruled to be a correct original spelling. The Bulletin of Zoological Nomenclature 40: 147–148.

Mertens R (1925) Verzeichnis der Säugetier-Typen des Senckenbergischen Museums. Senckenbergiana 7: 18–37.

Mertens R (1949) Eduard Rüppell. Leben und Werk eines Forschungsreisenden. Verlag Waldemar Kramer, Frankfurt am Main, 388 pp. [44 pls].

Mertens R (1966) Zur Typenterminologie und Nomenklatur einiger Nashoerner der Gattung Diceros. Zoologische Garten 32 (3): 116–117.

Mesnick SL (2014) Family Physeteridae (Sperm Whale). In: Wilson DE, Lacher TE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 4. Sea Mammals. Lynx Edicions, Barcelona, 300–317.

Mlíkovský J (2012) Correct name for the Indian flying fox (Pteropodidae). Vespertilio 16: 203–204.

Mohr E (1967) Der Blaubock Hippotragus leucophaeus (Pallas, 1766). Eine Dokumentation. Mammalia depicta. Verlag Paul Parey, Hamburg/Berlin, 81 pp.

Monadjem A (2019) Family Hipposideridae (Old World Leaf-Nosed Bats). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 9. Bats. Lynx Editions, Barcelona, 210–295.

Moraes P (2009) The Brazilian Herbarium of Maximilian, Prince of Wied. Neodiversity 4(2): 16–51. DOI: 10.13102/neod.42.1

Moratelli R, Burgin J (2019) Family Vespertilionidae (Vesper Bats). In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 9. Bats. Lynx Editions, Barcelona, 716–983.

Moratelli R, Burgin J, Cláudio VC, Novaes RLM, López-Baucells A, Haslauer R (2020) Family Vespertilionidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 212–279.

Müller S (1838) Over eenige nieuwe zoogdieren van Borneo. Tijdschrift voor Natuurlijke Geschiedenis en Physiologie 5: 134–150.

Müller S (1839) Over de zoogdieren van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 1–57, table, 1–8.

Müller S (1840a) Over de zoogdieren van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 1–57, table, 9–57.

Müller S (1840b) Bijdragen tot de kennis van Nieuw-Guinea. Eerste afdeeling. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Land- en volkenkunde: 13–30.

Müller S (1841) Schetsen uit de oostelijke streken des Indischen Archipels. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Land- en volkenkunde: 81–128.

Müller S (1842) Bijdragen tot de kennis van Timor en eenige andere naburige eilanden. Inleiding. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Land- en volkenkunde: 129–160.

Müller S (1847) Reis in het zuidelijke gedeelte van Borneo. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Land- en volkenkunde: 321–446.

Müller S, Schlegel H (1841). Over de wilde zwijnen van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: pl 32.

Müller S, Schlegel H (1842) Over de herten van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: pls 42–45.

Müller S, Schlegel H (1843a) Over de wilde zwijnen van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: pls 28–31.

Müller S, Schlegel H (1843b) Beschrijving van een merkwaardig insektenetend zoogdier, Hylomys suillus. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: pls 25, 26.

Müller S, Schlegel H (1845a). Over de wilde zwijnen van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 169–182.

Müller S, Schlegel H (1845b) Over de herten van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 209–228.

Müller S, Schlegel H (1845c). Beschrijving van een merkwaardig insektenetend zoogdier, Hylomys suillus. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 153–158.

Müller S, Schlegel H (1845d). Over de ossen van den Indischen archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 195–208.

Nehring A (1885a) Herr Nehring sprach über Dachs, Wolf, Hirsch und Wildschwein Japan's. Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin, Jahrgang 1885: 137–143.

Nehring A (1885b) Über das japanische Wildschwein. (Sus leucomystax Temm.). Der Zoologischer Garten 26: 325–336.

Nehring A (1889) Ueber Sus celebensis und Verwandte. Abhandlungen und Berichte des Königlichen Zoologischen und Anthropologisch-Ethnographischen Museums zu Dresden 1888/89 (2): 1–34 [pls 1–2].

Nilsson S (1832–1840) Illuminerade figurer till Skandinaviens fauna. Academie-boktryckeriet hos C.F. Berling, Lund, 20pp. [25 pls].

Oei HP (1960) Notes on bats from Bali, Lombok and Sumba. Hemera Zoa 67 (1–2): 23–32.

Oey HP (1951) A new species of Bat from Cambodge, Glischropus rosseti sp. nov. Beaufortia 8: 1–6.

Ognev S.I (1927) A synopsis of the Russian bats. Journal of Mammalogy 8: 140–157

Ouwens PA (1910) Contribution à la connaissance des mammiféres de Célébès. Bulletin du département de l'agriculture aux Indes Néerlandaises 38 (Zoölogie 6): 1–7.

Øysten W, Bachmann L (2013) The mammal type specimens at the Natural History Museum, University of Oslo, Norway. Zootaxa 3736 (5): 587–597. DOI: http://dx.doi.org/10.11646/zootaxa.3736.5.9.

Pallas PS (1766) Miscellanea zoologica quibus novae imprimis atque obscurae animalium species describuntur et observationibus iconibusque illustrantur. Petrus van Cleef, Hagae Comitum, xii + 224 pp. [14 pls].

Pallas PS (1767) De antilopibus generatim. In: Spicilegia zoologica quibus novae imprimis et obscurae animalium species iconibus, descriptionibus atque commentariis illustrantur. Fasciculus primus. Gottl. August. Lange, Berlin, 3–44 [pls 1–3].

Pallas PS (1775) Equus hemionus, Mongolis dshikketaei dictus, decribente P. S. Pallas. Novi commentarii Academiae Scientiarum Imperialis Petropolitanae 19: 394–417.

Pallas PS (1811) Zoographia Rosso-Asiatica : sistens omnium animalium in extenso Imperio Rossico, et adjacentibus maribus observatorum recensionem, domicilia, mores et descriptiones, anatomen atque icones plurimorum. Vol. 1. St Petersburg, Caes. Acadamiae Scientiarum Impress., 568 pp.

Park HC, Kurihara N, Kim KS, Min MS, Han S, Lee H, Kimura J. (2019) What is the taxonomic status of East Asian otter species based on molecular evidence?: focus on the position of the Japanese otter holotype specimen from museum. Animal Cells and Systems 23(3): 228–234. doi: 10.1080/19768354.2019.1601133.

Parnaby, HE, Helgen KM (2023) Rediscovery of the Long-eared Bat Genus *Nyctophilus* (Chiroptera: Vespertilionidae) in Timor and a Reassessment of *Nyctophilus timoriensis*. Records of the Australian Museum 75(5): 629–652.

Peters WCH (1852a) 22. Februar 1852 Herr Peters zeigte Abbildungen zweier neuer Antilopenarten aus Mosambik. Berlinische Nachrichten von Staats- und gelehrten Sache 45: 6. Reprinted in 1912 Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin am 17. Februar 1852: 104.

Peters WCH (1852b) Naturwissenschaftliche Reise nach Mossambique auf Befehl Seiner Majestät des Königs Friedrich Wilhelm IV in den Jahren 1842 bis 1848 ausgeführt. Zoologie. I. Säugethiere. Georg Reimer, Berlin, xvi + 202 pp. [44 pls].

Peters WCH (1862a). In: Hensel (1862) Bericht über die Leistungen der naturgeschichte der Säugethiere während des Jahres 1861. Archiv für Naturgeschichte, 28, 2: 117.

Peters WCH (1862b) Derselbe sprach über den Pteropus stramineus Geoffroy. Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1861: 423.

Peters WCH (1865a) Hr. W. Peters las über Flederthiere (Vespertilio soricinus Pallas), Choeronycteris Lichtenst., Rhinophylla pumilio nov. gen., Artibeus fallax nov. sp., A. concolor nov. sp., Dermanura

quadrivittatum nov. sp., Nycteris grandis n. sp.). Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1865: 351–359.

Peters WCH (1865b) Hr. W. Peters las über die zu den Vampyri gehörigen Flederthiere und über die natürliche Stellung der Gattung Antrozous. Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1865: 503–524.

Peters WCH (1866a) Hr. W. Peters machte eine Mittheilung über neue oder ungenügend bekannte Flederthiere (*Vampyrops, Uroderma, Chiroderma, Ametrida, Tylostoma, Vespertilio, Vesperugo*) und Nager (*Tylomys, Lasiomys*). Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1866: 392–411.

Peters WCH (1866b) Hr. W. Peters gab einen Nachtrag zu seiner Abhandlung über die Ohrenrobben, Otariae (Monatsbericht 1866 p. 261.). Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1866: 665–672.

Peters WCH (1867) Hr. W. Peters las über die Flederhunde, Pteropi, und insbesondere über die Arten der Gattung Pteropus s.s. Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1867: 319–333.

Peters WCH (1868) Hr. W. Peters gab die Fortsetzung und den Schluss einer Übersicht der Flederhunde. Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1867: 865–872.

Peters WCH (1871) Hr. W. Peters las über die Gattungen und Arten der Hufeisennasen, Rhinolophi. Monatsberichte der Königlichen Akademie der Wissenschaften zu Berlin 1871: 301–332.

Peters WCH (1883) Herr W. Peters machte eine Mittheilung über die von Herrn Dr. Finsch von den Carolinen-Inseln eingesandten Flederhunde. Sitzungs-Berichte der Gesellschaft naturforschender Freunde zu Berlin 1883: 1–2.

Pieters FJM (1980) Notes on the menagerie and zoological cabinet of Stadholder William V of Holland, directed by Aernout Vosmaer. Journal of the Society for the Bibliography of Natural History 9(4): 539.

Pilleri G, Gihr M (1975) On the taxonomy and ecology of the finless black porpoise, Neophocaena (Cetacea, Delphinidae). Mammalia 39: 657–673, pls XIX–XXVI.

Pocock RI (1936) The Asiatic Wild Dog or Dhole (Cuon javanicus). Proceedings of the Zoological Society of London 106(1): 33–55.

Pohle H (1943) Die Originale der Peter'schen Beschreibungen chinesischer Fledertiere 1870. Zeitschrift für Säugetierkunde 15: 321–323.

Pollen FPL (1868) Relation de voyage. In: Recherches sur la faune de Madagascar et de ses dépendances, d'après les découvertes de François P.L. Pollen et D.C. van Dam. 1re partie. J.K. Steenhoff, Leiden, 240 pp. [pls, map].

Quoy JRC, Gaimard JP (1824) Zoologie. In: L. de Freycinet (ed.). Voyage autour du monde, entrepris par ordre du Roi, ... exécuté sur les corvettes de S.M. l'Oranie et la Physicienne, pendant les années 1817, 1818, 1819 et 1820. Zoologie. Pillet Aîné, Paris, 712 pp [pls].

Rasch H (1843a) Delphinus leucopleurus. Nova species descripta ab H. Rasch. Nyt Magazin for Naturvidenskaberne 4: 100–103, pls II–III.

Rasch H (1843b) Anmerkning til dette heftes förste (4de Binds 7de) stykke. Nyt Magazin for Naturvidenskaberne 4: 202.

Reardon TB, McKenzie NL, Cooper SJB, Appleton B, Carthew S, Adams M (2014) A molecular and morphological investigation of species boundaries and phylogenetic relationships in Australian free-tailed bats Mormopterus (Chiroptera : Molossidae). Australian Journal of Zoology 62: 109–136. http://dx.doi.org/10.1071/ZO13082.

Reinwardt CGC (1858) Reis naar het oostelijk gedeelte van den Indischen Archipel, in het jaar 1821; uit zijne nagelaten aanteekeningen opgesteld, met een levensberigt en bijlagen vermeerderd; door W.H. de Vriese. Werken van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde van Nederlandsch Indië. Tweede afdeeling. Afzonderlijke werken. Frederik Muller, Amsterdam, xvi + 646 pp. [19 pls].

Reyes JC, Mead JG, Van Waerebeek K (1991) A new species of beaked whale Mesoplodon peruvianus sp. n. (Cetacea: Ziphiidae) from Peru. Marine Mammal Science 7: 1–24.

Robbins CB, De Vree F, Van Cakenberghe V (1985) A systematic revision of the African bat genus Scotophilus (Vespertilionidae). Koninklijk Museum voor Midden-Afrika, Tervuren, België Zoologische wetenschappen 246: 51–84.

Robinson HC, Kloss CB (1916) Preliminary diagnoses of some new species and subspecies of mammals and birds obtained in Korinchi, West Sumatra, Feb.–June 1914. Journal of the Straits Branch of the Royal Asiatic Society 73: 269–278.

Robinson HC, Kloss CB (1917) On the Southern Malayan race of the White-Whiskered Palm-Civet. Journal of the Federated Malay States Museums 7: 243–244.

Robinson HC, Kloss CB (1919) On mammals, chiefly from the Ophir District, West Sumatra, collected by Mr. E. Jacobson. Journal of the Federated Malay States Museums 7: 299–323.

Rozendaal FG (1984) Notes on macroglossine bats from Sulawesi and the Moluccas, Indonesia, with the description of a new species of Syconycteris Matschie, 1899 from Halmahera (Mammalia: Megachiroptera). Zoologische Mededelingen Leiden 58: 187–212.

Ruedas LA (2017) A new species of cottontail rabbit (Lagomorpha: Leporidae: Sylvilagus) from Suriname, with comments on the taxonomy of allied taxa from northern South America. Journal of Mammalogy 98(4): 1042–1059. DOI:10.1093/jmammal/gyx048.

Ruedi M (1995) Taxonomic revision of shrews of the genus Crocidura from the Sunda Shelf and Sulawesi with description of two new species (Mammalia, Soricidae). Zoological Journal of the Linnean Society 115: 211–265.

Ruedi M, Vogel P (1995) Chromosomal evolution and zoogeographic origin of southeast Asian shrews (genus Crocidura). Experientia 51: 174–178.

Rüppell E (1835–1838) Neue Wirbelthiere zu der Fauna von Abyssinien gehörig, entdeckt und beschrieben von Dr. Eduard Rüppell. Säugethiere. Siegmund Schmerber, Frankfurt am Main, 40 pp. [14 pls].

Sanborn CC (1939) Eight new bats of the genus Rhinolophus. Zoological Series of Field Museum of Natural History 24: 37–43.

Satunin KA (1914) Определитель млекопитающихъ Россійской Имперіи. Выпускъ первый. (Рукокрылыя, Насекомоядныя и Хищныя) [Key to the Mammals of the Russian Empire. First Volume. (Bats, Insectivores and Carnivores)]. Tipografiâ Kancelârii Namestnika Ego Imperatorskago Veličestva na Kavkaze, Tiflis, 148 pp.

Schinz HR (1821) Das Thierreich, eingetheilt nach dem Bau der Thiere als Grundlage ihrer Naturgeschichte und der vergleichenden Anatomie von den Herrn Ritter von Cuvier. Erster Band. Säugethiere und Vögel. Stuttgart und Tübingen, J.G. Cotta'schen Buchhandlung, 894 pp.

Schinz HR (1825) Das Thierreich, eingetheilt nach dem Bau der Thiere als Grundlage ihrer Naturgeschichte und der vergleichenden Anatomie von den Herrn Ritter von Cuvier. Vierter Band. Zoophyten. Stuttgart und Tübingen, J.G. Cotta'schen Buchhandlung, 793 pp.

Schinz HR (1845) Systematisches Verzeichniß aller bis jetzt bekannten Säugethiere oder Synopsis mammalium nach dem Cuvier'schen System, 2. Jent & Gaßmann, Soloturn, 574 pp.

Schlegel H (1828) Verhandeling over eenen, in het jaar 1826, aan de Noord-Hollandsche kust gestranden vinvisch. Nieuwe Verhandelingen der Eerste Klasse van het Koninklijk-Nederlandsche Instituut van Wetenschappen, Letterkunde en Schoone Kunsten te Amsterdam 3: 1–26 [pls 1–2].

Schlegel H (1841) Beiträge zur Charakteristik der Cetaceen. Abhandlungen aus dem Gebiete der Zoologie und Vergleichenden Anatomie 1: 1–44 [pls 1–6].

Schlegel H (1844) Les mammifères marins. In: Fauna Japonica sive descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823–1830 collegit, notis, observationibus et adumbrationibus illustravit Ph. Fr. de Siebold. Conjunctis studiis C.J. Temminck et H. Schlegel pro vertebratis atque W. de Haan pro invertebratis elaborata. Arnz et Socii, Leiden, 1–26 [pls 21–30].

Schlegel H (1857a) Handleiding tot de beoefening der dierkunde. Ie deel: i–lii. Koninklijke Akademie voor de Zee- en Landmacht. Boekdrukkerij van de Gebroeders Nys, Breda, 530 pp.

Schlegel H (1857b) De beden of Egyptische steenbok. Jaarboekje van het Koninklijk Zoölogisch Genootschap Natura Artis Magistra voor het jaar 1857: 156–163.

Schlegel H (1866) Contributions à la faune de Madagascar et des îles avoisinantes, d'après les découvertes et observations de M.M. François Pollen et M. D.-C. van Dam. Nederlandsch Tijdschrift voor de Dierkunde 3: 73–89.

Schlegel H (1867) [Communication on mammals and birds collected in Madagascar]. Proceedings of the scientific meetings of the Zoological Society of London for the year 1866: 419–426.

Schlegel H (1872) De zoogdieren. In: Witkamp, P.H. (Ed) De diergaarden van vroegeren en lateren tijd inzonderheid de diergaarde van het Koninklijk Zoölogisch Genootschap Natura Artis Magistra te Amsterdam. Amsterdam, Van Es, 1–174.

Schlegel H (1879) Paradoxurus musschenbroekii. Notes from the Royal Zoological Museum of the Netherlands 1: 43.

Schlegel H (1880) On an anomalous species of hare discovered in the isle of Sumatra: Lepus Netscheri. Notes from the Leyden Museum 2: 59–65.

Schlegel H, Müller S (1845) Over de ossen van den Indischen Archipel. Verhandelingen over de natuurlijke geschiedenis der Nederlandsche overzeesche bezittingen, door de leden der Natuurkundige commissie in Indië en andere schrijvers. Zoologie: 195–208 [pls 35–41].

Schlegel H, Pollen FPL (1868) Mammifères et oiseaux. In: Recherches sur la faune de Madagascar et de ses dépendances, d'après les découvertes de François P.L. Pollen et D.C. van Dam. 2me partie. J.K. Steenhoff, Leiden + xix, 186 pp. [40 pls].

Schreiber A (2007) The emerging dziggetai (Equidae: Equus hemionus PALLAS): An illustrated history of taxonomic concepts for the identification, classification, and distribution of hemiones from Central Asia 1). Erforschung biologischer Ressourcen der Mongolei (Halle/Saale) 96(10): 1–80.

Schwarz E (1920) Huftiere aus West- und Zentralafrika. In: H. Schubotz (ed.). Ergebnisse der zweiten deutschen Zentral-Afrika-Expedition 1910–1911 unter Führung Adolfs Friedrichs, Herzogs zu Mecklenburg. Band I. Zoologie. Lieferung 15: Huftiere. Klinkhardt & Biermann, Leipzig, 831–1090 [pl. 33–47].

Sclater PL (1862a) Dr. Sclater called the attention of the Meeting to some interesting additions lately made to the Society's Menagerie. Proceedings of the Zoological Society of London for the year 1862: 186–187.

Sclater PL (1862b) Note on the Japanese Bear. Proceedings of the Zoological Society of London for the year 1862: 261 [pl. 32].

Seba A (1734) Locupletissimi rerum naturalium thesauri accurata descriptio et iconibus artificiosissimis expressio per universam physices historiam. Tomus I. H. Janssonius van Waesberge, & J. Wettstein & W. Smith, Amsterdam, 178 pp. [111 pls].

Sherborn CD (1922) Index animalium; sive, Index nominum quae ab A. D. MDCCLVIII generibus et speeiebus animalium imposita sunt. Part I. Introduction, bibliography and index A–Aff. London, Trustees of the British Museum, cxxi + 128 p.

Sherborn CD, Jentink FA (1895) On the dates of the parts of Siebold's 'Fauna Japonica' and Giebel's 'Allgemeine Zoologie' (first edition). Proceedings of the general meetings for scientific business of the Zoological Society of London for the year 1895: 149–150.

Sherborn CD, Griffith FJ (1934) IX.–On the Dates of Publication of the Natural History Portions of Alcide d'Orbigny's 'Voyage Amérique méridionale.' The Annals and Magazine of Natural History, vol. 13(73): 130–134.

Sillero-Zubiri C (2020) Family Canidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 424–433.

Skinner JD, Mitchell G (2020) Family Giraffidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 424–433.

Smith A (1829) Contributions to the natural history of South Africa. The Zoological Journal 4: 433–443.

Smith CH (1827a) The third Order of the Mammalia. The Carnassiers. In: Griffith E et al. (Eds) Animal Kingdom arranged in conformity with its organization, by the Baron Cuvier member of the Institute of France etc., with additional description of all the species hitherto named, and of many not before noticed. Vol. 2. Geo B. Whittaker, London, 516 pp [68 pls].

Smith CH (1827b) Supplement to the order Ruminantia. In: Griffith E et al. (Eds) Animal Kingdom arranged in conformity with its organization, by the Baron Cuvier member of the Institute of France etc., with additional description of all the species hitherto named, and of many not before noticed. 4. Geo B. Whittaker, London, 33–428.

Smuts J (1832) Dissertatio zoologica inauguralis, enumerationem mammalium Capensium. J.C. Cyfveer, Leiden, vi + 108 pp. [3 pls].

Sody HJV (1928) Twee nieuwe subspecies van Pachyotis Temmincki Horsf. Natuurkundig Tijdschrift voor Nederlandsch-Indië 88: 86–92.

Sody HJV (1930) On some new or insufficiently known mammals from Java, Borneo and Celebes. Natuurkundig Tijdschrift voor Nederlandsch-Indië 90: 258–273.

Sody HJV (1931) Six new mammals from Sumatra, Java, Bali and Borneo. Natuurkundig Tijdschrift voor Nederlandsch-Indië 91: 349–360.

Sody HJV (1932) Four new mammals from Bali and Soemba. Natuurkundig Tijdschrift voor Nederlandsch-Indië 92: 334–340.

Sody HJV (1933) Ten new mammals from the Dutch East Indies. The Annals and Magazine of Natural History, including Zoology, Botany, and Geology (10) 12: 430–442.

Sody HJV (1936) Seventeen new generic, specific, and subspecific names for Dutch East Indian mammals. Natuurkundig Tijdschrift voor Nederlandsch-Indië 96: 42–55.

Sody HJV (1937) Notes on some mammals from Sumatra, Java, Bali, Buru, and New Guinea. Temminckia 2: 211–220.

Sody HJV (1940a) On the mammals of Enggano. Treubia 17: 391–401 [map].

Sody HJV (1940b) Notes on Rattus rattus and R. r. roquei, and on some frugivorous bats. Treubia 17: 403–405.

Sody HJV (1941) A new race of Sus verrucosus from Madoera island. Treubia 18 (3): 393–394.

Sody HJV (1949) Notes on some Primates, Carnivora, and the babirusa from the Indo-Malayan and Indo-Australian regions (with descriptions of 10 new species and subspecies). Treubia 20: 121–190.

Statius Müller PL (1776) Des Ritters Carl von Linné Königlich Schwedischen Leibarztes etc. etc. vollständigen Natursystems Supplements- und Register-Band über alle sechs Theile oder Classen des Thierreichs. Mit einer ausführlichen Erklärung ausgefertiget von Philipp Ludwig Statius Müller. Erste Classe. Säugende Thiere. Gabriel Nicolaus Raspe, Nürnberg: 62 pp.

Sundevall CJ (1847a) Nya Mammalia från Sydafrika. Öfversigt af Kongl. Vetenskaps-Akademiens Förhandlingar 3: 118–121.

Sundevall CJ (1847b) Methodisk öfversigt of Idislande djuren, Linnes Pecora. Kongliga Svenska vetenskaps-akademiens handlingar för år 1844: 121–210.

Sunquist ME, Sunquist FC (2020) Family Felidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher, TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol. 2. Lynx Editions, Barcelona, 394–407.

Susanna JA (1834) Levensschets van Hendrik Boie: en hulde aan zijne deugden en verdiensten benevens eenige door hem geschreven brieven, gedurende zijne reis en verblijf in Oost-Indië. P. Meijer Warnars, Amsterdam, 288 pp.

Swainson W (1835) A treatise on the geography and classification of animals. Longman, Rees, Orme, Brown, Green & Longman and John Taylor, London, 367 pp.

Swinhoe R (1863) On the mammals of the Island of Formosa (China). Proceedings of the scientific meetings of the Zoological Society of London for the year 1862: 347–365 [pls 42–45].

Swinhoe R (1870) Catalogue of the mammals of China (south of the river Yangtsze) and of the Island of Formosa. Proceedings of the scientific meetings of the Zoological Society of London for the year 1870: 615–653.

Tate GHH (1940) Notes on the types of certain early described species of monotremes, marsupials, Muridae and bats from the Indo-Australian region. American Museum Novitates 1061: 1–10.

Tate GHH (1941a) A review of the genus Hipposideros with special reference to Indo-Australian species. Bulletin of the American Museum of Natural History 78: 353–393.

Tate GHH (1941b) Results of the Archbold expeditions. No. 37. Notes on oriental Taphozous and allies. American Museum Novitates 1141: 1–5.

Tate GHH (1942) Results of the Archbold expeditions. No. 47. Review of the vespertilionine bats, with special attention to genera and species of the Archbold collections. Bulletin of the American Museum of Natural History 80: 221–297.

Tate GHH (1944) A List of the Mammals of the Japanese War Area Vol. 3. American museum of natural history, New York, 22 pp.

Tate GHH, Archbold R (1939) Results of the Archbold Expeditions. No. 23. A revision of the genus Emballonura (Chiroptera). American Museum Novitates 1035: 1–14.

Taylor EH (1934) Philippine land mammals. Monographs of the Bureau of Science 30. The Government of the Philippine Islands, Department of Agriculture and Science, Bureau of Science, Manila, 548 pp. [25 pls].

Taylor PJ (2019) Family Molossidae. In: Wilson DE, Mittermeier RA (Eds) Handbook of the Mammals of the World. Vol. 9. Bats. Lynx Editions, Barcelona, 598–674.

Taylor PJ, Lim BK, Pennay M, Soisook P, Loureiro LO, Moras LM, Kingston T (2020) Family Molossidae. In: Burgin CJ, Wilson DE, Mittermeier RA, Rylands AB, Lacher TE, Sechrest W (Eds) Illustrated Checklist of the Mammals of the World. Vol 2. Lynx Editions, Barcelona, 190–208.

Temminck CJ (1820) Sur le genre Hyène, et description d'une espèce nouvelle, découverte en Afrique. Annales Générales des Sciences Physiques 3: 46–57 [pl. 35].

Temminck CJ (1824a) Discours préliminaire. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome premier. G. Dufour & Ed. d'Ocagne, Paris/Amsterdam, 1–32.

Temminck CJ (1824b) Tableau systématique des mammifères. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome premier. G. Dufour & Ed. d'Ocagne, Paris, Amsterdam: 13–22.

Temminck CJ (1825a) Quatrième monographie sur le genre chat ou félis. Félis (Linn., Cuv., Geoff., Illig., Desm.). In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome premier. G. Dufour & Ed. d'Ocagne, Paris/Amsterdam, 73–156 [pl. 9].

Temminck CJ (1825b) Cinquième monographie. Vues générales sur l'ordre des cheiroptères. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome premier. G. Dufour & Ed. d'Ocagne, Paris/Amsterdam, 157–204 [pls 10–16].

Temminck CJ (1826) Sixième Monographie sur le genre Molosse. – Dysopes (Illig.). In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome premier. G. Dufour & Ed. d'Ocagne, Paris/Amsterdam, 205–240.

Temminck CJ (1827) Septième monographie. Sur une espèce nouvelle de la famille des rongeurs, formant le type du genre ulacode. Aulacodus (V. Swind.). In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome premier. G. Dufour & Ed. d'Ocagne, Paris/Amsterdam, 245–268, 25 pls.

Temminck CJ (1828) Blik op de dierlijke bewoners van de Sunda-Eilanden en van de overige Nederlandsche bezittingen in Indië. Bijdragen tot de Natuurkundige Wetenschappen 3: 62–78.

Temminck CJ (1834) Over een geslacht der vleugelhandige zoogdieren, bladneus genaamd. (Rhinolophus Geoff., Cuv., Illig., Desm.; Vespertilio Linn., Erxleb.; Noctilio Kuhl). Tijdschrift voor Natuurlijke Geschiedenis en Physiologie 1: 1–30 [pl. 1].

Temminck CJ (1835a) Huitième monographie. Sur le genre rhinolophe; Rhinolophus (Geoff. Cuv. Illig. Desm.). Vespertilio (Linn. Erxleb.). Noctilio (Kuhl.). In: Monographies de mammalogie, ou description

de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 1–39 [pls 26–32].

Temminck CJ (1835b) Neuvième monographie. Sur un nouveau genre de rongeur sous le nom de Nyctocleptes (1). In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 40–45 [pl. 33].

Temminck CJ (1835c) Dixième monographie. Sur le nouveau genre nyctophile. Nyctophilus (Leach). In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 46–48 [pl. 34].

Temminck CJ (1836) Coup-d'oeil sur la faune des îles de la Sonde et de l'Empire du Japon. Discours préliminaire destiné à servir d'introduction à la Faune du Japon. [Leiden], 1–30.

Temminck CJ (1837) Onzième monographie. Les cheiroptères frugivores. Additions aux vues générales sur l'ordre des cheiroptères, révision de la monographie du genre roussette et monographies des genres pachysome, macroglosse, harpie et céphalote. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 49–112 [pls 35–40].

Temminck CJ (1838a) Over de geslachten Taphozous, Emballonura, Urocryptus en Diclidurus. Tijdschrift voor Natuurlijke Geschiedenis en Physiologie 5: 1–34 [pls 1–2].

Temminck CJ (1838b) Over de kennis en verbreiding der zoogdieren van Japan. Tijdschrift voor Natuurlijke Geschiedenis en Physiologie 5: 273–293.

Temminck CJ (1840. Treizième monographie sur les cheiroptères vespertilionides formant les genres nyctice [sic], vespertilion et furie. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observés dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 141–272 [pls 47–50(9)].

Temminck CJ (1841a) Quatorzième monographie. Sur les genres taphien – queue-en-fourreau – queue-cachée – et queue-bivalve. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 273–304 [pls 60–61].

Temminck CJ (1841b) Quinzième monographie sur les genres arcticte et paradoxure. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 305–344 [pls 60(2)–65].

Temminck CJ (1841c) Seizième monographie sur le genre pédimane. Cheiromeles, (Horsf.) suivie d'une addition a la monographie des molosses. In: Monographies de mammalogie, ou description de quelques genres de mammifères, dont les espèces ont été observées dans les différens musées de l'Europe. Tome second. C.C. van der Hoek, Leiden & Ed. d'Ocagne & A. Bertrand, Paris, 345–356 [pls 66–68].

Temminck CJ (1841d) Eenige geslachten van zoogdieren, een deel der fauna van Japan uitmakende. Het Institiuut, of Verslagen en mededeelingen uitgegeven door de vier klassen van het Koninklijk Nederlandsch Instituut van Wetenschappen, Letterkunde en Schoone Kunsten over den jare 1841: 208–216.

Temminck CJ (1842) Aperçu général et spécifique sur les mammifères qui habitent le Japon er les iles qui en dépendent. In: Fauna Japonica sive descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823–1830 collegit, notis, observationibus et adumbrationibus illustravit Ph. Fr. de Siebold. Conjunctis studiis C.J. Temminck et H. Schlegel pro vertebratis atque W. de Haan pro invertebratis elaborata. Arnz et Socii, Lugduni Batavorum, 1–24 [pls 1–10].

Temminck CJ (1844) Aperçu général et spécifique sur les mammifères qui habitent le Japon er les iles qui en dépendent. In: Fauna Japonica sive descriptio animalium, quae in itinere per Japoniam, jussu et auspiciis superiorum, qui summum in India Batava imperium tenent, suscepto, annis 1823–1830 collegit, notis, observationibus et adumbrationibus illustravit Ph. Fr. de Siebold. Conjunctis studiis C.J. Temminck et H. Schlegel pro vertebratis atque W. de Haan pro invertebratis elaborata. Arnz et Socii, Lugduni Batavorum, 25–59 [pls 11–20].

Temminck CJ (1846) Coup-d'oeil général sur les possessions néerlandaises dans l'Inde archipélagique. Tome premier. A. Arnz & Comp., Leiden, xxii + 352 pp.

Temminck CJ (1847) Coup-d’oeil général sur les possessions néerlandaises dans l’Inde archipélagique. Tome second. A. Arnz & Comp., Leiden, viii + 471 pp.

Temminck CJ (1853) Esquisses zoologiques sur la côte de Guiné. 1e partie, les mammifères. E.J. Brill, Leiden, xvi + 256 pp.

Thomas O (1888) Diagnoses of four new mammals from the Malayan Region. The Annals and Magazine of Natural History, including Zoology, Botany, and Geology (6) 2: 407–409.

Thomas O (1889) On the Mammals of Mount Kina Balu, North Borneo. Proceedings of the Zoological Society of London: 228–236.

Thomas O (1892) On the probable identity of certain specimens, formerly in the Lidth de Jeude collection, and now in the British Museum, with those figured by Albert Seba in his 'Thesaurus' of 1734. Proceedings of the general meetings for scientific business of the Zoological Society of London for the year 1892: 309–318.

Thomas O (1905) On some new Japanese mammals presented to the British Museum by Mr. R. Gordon Smith. The Annals and Magazine of Natural History, including Zoology, Botany, and Geology (7) 15: 487–495.

Thomas O (1909) On mammals collected in Turkestan by Mr. Douglas Carruthers. The Annals and Magazine of Natural History, including Zoology, Botany, and Geology (8) 3: 257–266.

Thomas O (1911a) Two new eastern Bats. The Annals and Magazine of Natural History. Including Zoology, Botany, and Geology (8) 8: 378–380.

Thomas O (1911b) The Mammals of the Tenth Edition of Linnaeus; an Attempt to fix the Types of the Genera and the exact Bases and Localities of the Species, Proceedings of the Zoological Society of London 81 (1): 120–158.

Thomas O (1918) A selection of lectotypes of Indian mammals, from the co-types described by Hodgson, Gray, Elliot and others. Journal of the Bombay Natural History Society 25(3): 368–372.

Thomas O (1923a) On some mammals, chiefly bats, from the East Indian Archiopelago. The Annals and Magazine of Natural History. Including Zoology, Botany, and Geology (9) 11: 250–255.

Thomas O (1923b) On some Mammals from Simalur Island, West of Sumatra, collected by Mr. E. Jacobson. The Annals and Magazine of Natural History. Including Zoology, Botany, and Geology (9) 12: 591–593.

Thomas O, Doria G (1886) Note intorno ad alcuni Chirotteri appartenenti al Museo Civico di Genova e descrizione di due nuove specie del genere Phyllorhina per OLDFIELD THOMAS e G. DORIA. Annali del Museo civico di storia naturale di Genova 24: 201–207.

Thunberg CP (1811) Beskrifning och teckning pa Viverra felina. Kungliga Swenska Wetenskaps Academiens Handlingar: 165–168.

Tomes RF (1858) A monograph of the genus Miniopterus. Proceedings of the Zoological Society of London: 115–128.

Troschel FH (1868) Bericht über die Leistungen in der Naturgeschichte der Säugethiere während des Jahres 1867. Archiv für Naturgeschichte 34 (2): 1–45.

Trouessart E-L (1880a) Diagnose d'une nouvelle et tres petite espèce de musaraigne de Madagascar. Le Naturaliste, Journal des Échanges et des Nouvelles 2: 197.

Trouessart E-L (1880b) On a new very small shrew from Mayotte, Crocidura (Pachyura) coquerelii, Pollen and Van Dam, ms. Notes from the Royal Zoological Museum of the Netherlands at Leyden (Notes from the Leyden Museum) 2: 85–89.

Turni H (2024) Type specimens of Primates (Mammalia) in the collections of the Museum für Naturkunde Berlin. Zootaxa 5543(2): 151–194. https://doi.org/10.11646/zootaxa.5543.2.1

Turni H, Hutterer R, Asher R (2007) Type specimens of "insectivoran" mammals at the Museum für Naturkunde, Berlin. Zootaxa 1470: 1–33.

Turni H, Kock D (2008) Type specimens of bats (Chiroptera: Mammalia) in the collections of the Museum fur Naturkunde, Berlin. Zootaxa 1869: 3–82.

Van Bemmel ACV (1949) Revision of the rusine deer in the Indo-Australian archipelago. Treubia 20(2): 191–262.

Van Bemmel ACV (1952) Contribution to the knowledge of the genera Muntiacus and Arctogalidia in the Indo-Australian Archipelago (Mammalia, Cervidae & Viverridae). Beaufortia 2(16): 1–50.

Van Bree PJH (1961) On the type specimen of Hipposideros larvatus sumbae Oei Hong Peng, 1960 (Mammalia, Chiroptera). Verhandlungen der Naturforschenden Gesellschaft in Basel 72 (1): 122–123.

Van Bree PJH (1971) Delphinus tropicalis, a new name for Delphinus longirostris G. Cuvier. Mammalia 35: 345–346.

Van Cakenberghe V, Vallo P (2017) Advances in taxonomy of African house bats (Scotophilus, Vespertilionidae). African Bat Conservation News 46: 4–9.

Van Deinse AB (1935) Pseudo-albinisme bij Phocaena phocaena. De Levende Natuur speciaal nummer: 113–117.

Van Deinse AB (1946) De recente Cetacea van Nederland van 1931 tot en met 1944. Zoologische Mededelingen Leiden 26: 139–210.

Van den Brink FH (1952) Une nouvelle musaraigne dans les Pays-Bas. Proceedings Koninklijke Nederlandse Akademie van Wetenschappen, series C, Biological and Medical Sciences 55: 370–374.

Van den Brink FH (1955) La musaraigne masque dans les Pays-Bas. Mededelingenblad van de Vereniging voor Zoogdierkunde en Zoogdierbescherming / Bulletin d'Information de la Societé [sic] pour la Protection des Mammifères 9: 89–91.

Van der Hoeven J (1839) Annotationes de quibusdam mammalium generibus actore J. van der Hoeven A.C.N.C.S. 1. Observationes de Phacochoero. Verhandlungen der Kaiserlich Leopoldinisch-Carolinischen Akademie der Naturforscher 19: 172–177.

Van der Mije S, Smeenk C, Kamminga P (2025) Type specimens of recent mammals in Naturalis Biodiversity Center. Part 1 Monotremata, Didelphimorphia, Dasyuromorphia, Peramelemorphia, Diprotodontia, Afrosoricida, Macroscelidea, Hyracoidea, Proboscidea, Scandentia, Primates, Rodentia (Mammalia). ZooKeys 1242: 1–164. https://doi.org/10.3897/zookeys.1242.117019

Van Hasselt JC (1823) Uittreksel uit een brief van Dr. J.C. van Hasselt. Geschreven uit het Bantamsche den 14 Maart 1823. Algemeene Konst- en Letter-Bode, voor het jaar 1823: 341–342.

Van Laar V (1964) Remarks on Sorex exiguus Van den Brink, 1952. Lutra 6: 66–68.

Van Leeuwen L (1954) On the characters of Sorex exiguus Van den Brink as compared with those of Sorex minutus L. Proceedings Koninklijke Nederlandse Akademie van Wetenschappen, series C, Biological and Medical Sciences 57: 332–338 [table 1].

Van Musschenbroek SCJW (1883) (Ed) Dagboek van Dr. H.A. Bernstein's laatste reis van Ternate naar Nieuw-Guinea, Salawati en Batanta 17 October 1864 – 19 April 1865. Bewerkt door Mr. S.C.J.W. van Musschenbroek. Met aanteekeningen, bijlagen en eene kaart. Martinus Nijhoff, 's Gravenhage, 258 pp.

Van Steenis-Kruseman MJ (1950) Malaysian plant collectors and collections being a cyclopaedia of botanical exploration in Malaysia and a guide to the concerned literature up to the year 1950. In: Van Steenis CGGJ (Ed) Flora Malesiana being an illustrated systematic account of the Malaysian flora, including keys for determination, diagnostic descriptions, references to the literature, synonymy, and distribution, and notes on the ecology of its wild and commonly cultivated plants. Series I. Spermatophyta. Vol. 1. Noordhoff-Kolff, Djakarta, clii + 639 pp.

Van Wingerden P (2023) Op reis vanuit een drijvende stad. De expeditie van de Natuurkundige Commissie op Borneo in 1836. Indische Letteren 3: 179–197.

Vanzolini PE, Myers CW (2015) The herpetological collection of Maximilian, Prince of Wied (1782–1867), with special reference to Brazilian materials. Bulletin of the American Museum of Natural History 395: 1–155.

Veron G, Patou M-L, Debruyne R, Couloux A, Fernandez DAP, Wong S.T, Fuchs J, Jennings A (2014) Systematics of the Southeast Asian mongooses (Herpestidae, Carnivora): solving the mystery of the elusive collared mongoose and Palawan mongoose. Zoological Journal of the Linnean Society: 1–13. Doi: 10.1111/zoj.12206.

Veth HJ (1879) Overzicht van hetgeen, in het bijzonder door Nederland, gedaan is voor de kennis der fauna van Nederlandsch Indië. S.C. van Doesburgh, Leiden, viii + 204 pp.

Von Heuglin T (1861a) Beiträge zur Fauna der Säugethiere N.O.-Afrika's. I. Chiroptera. Verhandlungen der Kaiserlichen Leopoldino-Carolinischen deutschen Akademie der Naturforscher 29 (8): 1–18.

Von Heuglin T (1861b) Beiträge zur Fauna der Säugethiere N.O.-Afrika's. III. Ueber zwei neue Säugethiere aus dem peträischen Arabien und Abyssinien. Verhandlungen der Kaiserlichen Leopoldino-Carolinischen deutschen Akademie der Naturforscher 29 (8): 22–23.

Von Heuglin T (1862a) Th. von Heuglin's Expedition nach Inner-Afrika. Siebenter Bericht: aus Keren und den Bogos-Ländern, 20. August bis 19. Oktober 1861. Mittheilungen aus Justus Perthes' Geographischer Anstalt über wichtige neue Erforschungen auf dem Gesammtgebiete der Geographie von Dr. A. Petermann 1862: 15–29.

Von Heuglin T (1862b) Ausflug der Herren Th. von Heuglin, Dr. Steudner und H. Schubert von Adoa nach Axum, November 1861. (Aus einem Briefe Th. v. Heuglin's d. d. Adoa, 10. Dezember 1861). Mittheilungen aus Justus Perthes' Geographischer Anstalt über wichtige neue Erforschungen auf dem Gesammtgebiete der Geographie von Dr. A. Petermann 1862: 142–145.

Von Heuglin T (1863) Nachtrag zur zweiten Abhandlung des XXX. Bandes: Beiträge zur Zoologie Afrika's. Über einige Säugethiere des Bäschlo-Gebietes. Verhandlungen der Kaiserlichen Leopoldinisch-Carolinischen deutschen Akademie der Naturforscher 30 (2) Nachtrag: 1–14.

Von Heuglin T (1865) Ueber einige Chiroptera Central-Afrika's. Novorum Actorum Academiae Caesarea Leopoldino-Carolinae Naturae Curiosorum 32: 12–15.

Von Hoffmansegg JC (1807) Beschreibung vier affenartiger Thiere aus Brasilien. Magazin für die neuesten Entdeckungen in der gesammten Naturkunde 1807 (2): 83–103.

Von Kittlitz FH (1858) Denkwürdigkeiten einer Reise nach dem russischen Amerika, nach Mikronesien und durch Kamtschatka. Zweiter Band. Justus Perthes, Gotha, 463 pp.

Von Pelzeln A (1883) Brasilische Säugethiere. Resultate von Johann Natterer's Reisen in den Jahren 1817 bis 1835. I, II. Verhandlungen der kaiserlich-königlichen zoologisch-botanischen Gesellschaft in Wien, Beiheft zu Band 33: 1–58.

Von Rosenberg CBH (1865) Reistogten in de afdeling Gorontalo, gedaan op last der Nederlandsch Indische regering. Frederik Muller, Amsterdam, viii + 162 pp. [4 pls, 4 maps].

Von Rosenberg CBH (1867) Reis naar de Zuidoostereilanden, gedaan in 1865 op last der regering van Nederlandsch-Indië. Martinus Nijhoff, 's Gravenhage, xxxvii + 125 pp.

Von Rosenberg CBH (1878) Der Malayische Archipel. Land und Leute in Schilderungen, gesammelt während eines dreissigjährigen Aufenthaltes in de Kolonien. Gustav Weigel, Leipzig, xii + 615 pp.

Von Schreber JCD (1784) Die Säugthiere in Abbildungen nach der Natur, mit Beschreibungen. Expedition des Schreber'schen säugthier- und des Esper'schen Schmetterlingswerkes, Erlangen.

Von Siebold PF (1824) De historiae naturalis in Japonia statu, nec non de augmento emolumentisque in decursu perscrutationum exspectandis dissertatio, cui accedunt specilegia faunae Japonicae. Bataviae, 16 pp.

Von Siebold PF (1897) Nippon. Archiv zur Beschreibung von Japan und dessen Neben- und Schutzländern Jezo mit den südlichen Kurilen, Sachalin, Korea und den Liukiu-Inseln von Ph. Fr. Von Siebold. Herausgegeben von seinen Söhnen. Erster Band. Zweite Auflage. K. U. K. Hofbuchhandlung von Leo Woerl, Würzburg/Leipzig, xxxv + 421 pp.

Von Spix JB (1823) Simiarum et vespertilionum Brasiliensium species novae, ou histoire naturelle des espèces nouvelles de singes et de chauve-souris observées et recueillis pendant le voyage dans l'intérieur du Brésil exécuté par ordre de S. M. le Roi de Bavière dans les années 1817, 1818, 1819, 1820. Typis Francisci Seraphici Hübschmanni, Monachii, viii + 72 pp. [38 pls].

Von Spix JB, Von Martius CFP (1823–1831) Reise in Brasilien in den Jahren 1817–1820. Unveränderter Neudruck des 1823–1831 in München in 3 Textbänden und 1 Tafelband erschienenen Werkes. Herausgegeben und mit einem Lebensbild des Botanikers C.F.P. von Martius sowie mit einem Register versehen von Karl Mägdefrau. 3 Vols. F.A. Brockhaus, Abt. Antiquarium, Stuttgart, 1966, 1388 pp.

Vosmaer A, Camper P (1787) Beschryving van het nog weinig bekende en 't allerhoogste van de viervoetige dieren, 't welk aan de Kaap de Goede Hoop bekend is onder den naam van kameel-paard, en by de oude en laatere schryvers onder dien van giraffe. Erven P. Meijer en G. Warnars, Amsterdam, 44 pp.

Wagenaar-Hummelinck P (1940) A survey of the mammals, lizards and mollusks. Studies on the Fauna of Curaçao and other Caribbean Islands 1 (1): 59–108.

Wagner JA (1841) Die Säugthiere in Abbildungen nach der Natur, mit Beschreibungen von Dr. Johann Christian Daniel von Schreber [...] fortgestezt von Dr. Johann Andreas Wagner. Supplement 2. Expedition des Schreber'schen säugthier- und des Esper'schen Schmetterlingswerkes, Erlangen, viii + 558 pp.

Wagner JA (1843) Diagnosen neuer Arten brasilischer Handflügler. Archiv für Naturgeschichte 9: 365–368.

Wagner JA (1844) Die Säugthiere in Abbildungen nach der Natur, mit Beschreibungen von Dr. Johann Christian Daniel von Schreber [...] fortgestezt von Dr. Johann Andreas Wagner. Supplement 5. Expedition des Schreber'schen säugthier- und des Esper'schen Schmetterlingswerkes, Erlangen, xii + 523 pp.

Wagner JA (1855) Die Säugthiere in Abbildungen nach der Natur, mit Beschreibungen von Dr. Johann Christian Daniel von Schreber [...] fortgestezt von Dr. Johann Andreas Wagner. Supplement 5. E.D. Weigel, Leipzig, viii + 810 pp.

Waku D, Segawa T, Yonezawa T, Akiyoshi A, Ishige T, Ueda M, Hiroshi O, Hiroshi S, Motokazu A, Naoki K, Takeshi S (2016) Evaluating the Phylogenetic Status of the Extinct Japanese Otter on the Basis of Mitochondrial Genome Analysis. PLoS ONE 11(3): e0149341, 1–19. https://doi.org/10.1371/journal.pone.0149341

Wallace AR (1869) The Malay Archipelago: the land of the orang-utan, and the bird of paradise. A narrative of travel, with studies of man and nature. Vol. II. Macmillan and Co., London, 524 pp.

Wang JY, Riehl KN, Dungan SZ (2014) Family Balaenopteridae (Rorquals). In: Wilson DE, Lacher TE, Mittermeier RA (Eds). Handbook of the Mammals of the World. Vol. 4. Sea Mammals. Lynx Edicions, Barcelona, 410–527.

Weber M (1890) Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien. Einleitung. Erster Band. E.J. Brill, Leiden, 11 pp. [maps 1–2].

Weber M (1894) Zoologische Ergebnisse einer Reise in Niederländisch Ost-Indien. Einleitung. Dritter Band. E.J. Brill, Leiden, 476 pp., 22 pls.

Westerman GF (1851). Beschrijving van eene Nieuwe soort van Marter, Mustela (Martes) Henricii. Bijdragen tot de Dierkunde 3(1): 13–14 [pl. 5].

Wied M (1820–1821) Reise nach Brasilien in den jahren 1815 bis 1817. Brönner, Frankfurt a.M, 345 pp.

Wied M (1824). Abbildungen zur Naturgeschichte von Brasilien Livr. 6. Industrie Comptoir, Weimar, 6 pls and text.

Wied M (1826) Beiträge zur Naturgeschichte von Brasilien. II. Band. Verzeichniss der Amphibien, Säugethiere und Vögel, welche auf einer Reise zwischen dem 13ten und dem 23sten Grade südlicher Breite im östlichen Brasilien beobachtet wurden. II. Abtheilung. Mammalia. Säugthiere. Verlag des Gr. H. S. priv. Landes-Industrie-Comptoirs, Weimar, 1–620 [pls 1–5].

Wied M (1861) Verzeichniss der auf meine Reise in Nordamerika beobachteten Säugethiere. Archiv für Naturgeschichte 27: 181–288.

Wilson DE, Reeder DM (2005) (Eds) Mammal species of the world. A taxonomic and geographic reference. Third edition. 2 Vols. The Johns Hopkins University Press, Baltimore, 2142 pp.

Wozencraft WC (2005) Carnivora. In: Wilson DE, Reeder DM (Eds) Mammal species of the world. A taxonomic and geographic reference. Third edition. 2 Vols. The Johns Hopkins University Press, Baltimore, 532–628.

Zalesky K (1937) Eine neue Rasse von Sorex araneus L. auf der holländischen Nordseeinsel Terschelling. Akademische Anzeiger 24: 213–214.

Zukowsky L (1965) Die Systematik der Gattung Diceros Gray, 1821. Der Zoologische Garten (N. F.) 30: 1–178 [figs. 1–81, 1 table].