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Catalog of Type Specimens of Recent Mammals:

Orders Carnivora, Perissodactyla,
Artiodactyla, and Cetacea in the
National Museum of Natural History,
Smithsonian Institution

Robert D. Fisher and Craig A. Ludwig

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ABSTRACT

Fisher, Robert D. and Craig A. Ludwig. Catalog of Type Specimens of Recent Mammals: Orders Carnivora, Perissodactyla, Artiodactyla, and Cetacea in the National Museum of Natural History, Smithsonian Institution. *Smithsonian Contributions to Zoology*, number 646, vi + 112 pages, 2016.—The type collection of Recent mammals in the Division of Mammals, National Museum of Natural History, Smithsonian Institution, contains 612 specimens bearing names of 604 species-group taxa of Carnivora, Perissodactyla, Artiodactyla, and Cetacea as of May 2016. This catalog presents an annotated list of these holdings comprising 582 holotypes; 16 lectotypes, two of which are newly designated herein; 7 syntypes (15 specimens); and 1 neotype. Included are several specimens that should be in the collection but cannot be found or are now known to be in other collections and therefore are not in the database. Thirty-seven of the names are new since the last type catalog covering these orders, Arthur J. Poole and Viola S. Schantz's 1942 "Catalog of the Type Specimens of Mammals in the United States National Museum, Including the Biological Surveys Collection" (*Bulletin of the United States National Museum*, 178). One of these, *Lutra iowa* Goldman, 1941, was transferred to the National Museum's Paleobiology Department collection and is mentioned only briefly in this work. Orders and families are arranged systematically following D. E. Wilson and D. M. Reeder's 2005 *Mammal Species of the World: A Taxonomic and Geographic Reference*, third edition, volume 1; within families, currently recognized genera are arranged alphabetically, and within each currently recognized genus, species and subspecies accounts are arranged alphabetically by original published name. Information in each account includes original name and abbreviated citation thereto, current name if other than original, citation for first use of current name combination for the taxon, type designation, U.S. National Museum catalog number(s), preparation, age and sex, date of collection and collector, original collector number, type locality, and remarks as appropriate. Digital photographs of each specimen will serve as a condition report and will be attached to each electronic specimen record. An addendum contains two accounts for holotypes added to the collection subsequent to the publication of the catalog for their taxa. Appendices tabulate summary data for all four of our recent type catalogs (Fisher and Ludwig, 2012, 2014, 2015, and this volume) and include authors of names, collectors of type specimens, countries, islands, and provinces or states in which type specimens were collected, numbers of new names per decade, and summary numbers for holotypes, lectotypes, syntypes, neotypes, and new taxa since the last type catalog (Poole and Schantz, 1942) covering the entire type collection.

Cover images: Holotype of *Lynchailurus colocolo wolfshoni* Garcia-Perea, 1994 (USNM 391853). Left to right: dorsal, lateral, and ventral views of cranium. Photographs by Renee Regan.

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Catalog of Type Specimens of Recent Mammals: Orders Carnivora, Perissodactyla, Artiodactyla, and Cetacea in the National Museum of Natural History, Smithsonian Institution

Robert D. Fisher^{1} and Craig A. Ludwig²*

FOREWORD

CATALOG OF TYPE SPECIMENS OF RECENT MAMMALS, PART 4

Natural history museums and the collections they house have never been more important to science and society than they are today. They voucher past research and furnish the raw material for specimen-based systematics research that provides an evolutionary framework for understanding the diversity, relationships, and natural history of species. Increasingly, these collections, assembled and maintained across decades and centuries, are utilized as a fundamental resource for understanding and managing environmental impacts and transformations in a rapidly changing world. Type specimens form a significant subset of any natural history collection. They serve as a “bureau of standards” for all manner of biological study, providing the empirical foundation for the definition of taxa and application of scientific names that are essential to communicating biodiversity information vital for management and conservation planning by resource agencies and organizations.

We are pleased to introduce the final number of the four-part Catalog of Type Specimens of Recent Mammals in the U.S. National Museum of Natural History (USNM), an incomparable research resource that documents the second largest collection of mammal type specimens in the world. Fortunately, Robert D. Fisher and Craig A. Ludwig are among the very few who have the requisite institutional knowledge, archival access, and dedication needed to summarize all available information about the mammal type collections at the National Museum of Natural History. Inventorying primary types is the essential first step in determining collections holdings as well as planning for their conservation and current and future use. Catalogs of any kind have many uses, and type catalogs are no exception. Foremost, they help fulfill a primary responsibility of the institution to publish lists of name-bearing types in its custody and to communicate information about those specimens (Recommendations 72F.4 and 72F.5, 4th ed. of the International Code of Zoological Nomenclature, 1999:79). Such catalogs are also critical for documenting the existence of an institution’s type specimens, reporting previously unavailable information about the holdings of name-bearing types, providing a reference for nomenclatural stability, and serving as an aid in the identification of organisms.

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Number 646, the last in a series of four sections comprising the USNM type catalog (Fisher and Ludwig, 2012, 2014, 2015, and this volume), completes an updated and expanded account of the name-bearing mammal types deposited in the National Museum of Natural History, Smithsonian Institution. Together these four accounts record all 3,198 extant name-bearing modern mammal specimens in the museum, a remarkable record of names and of scientific hypotheses representing nearly two centuries of exciting discoveries and scholarly investigations that have taken place at the Smithsonian Institution. Of course, the number of type specimens in the mammal collection continues to grow, issuing both from new expeditions that document previously undescribed mammal taxa and from new research in the field of mammalian systematics. Following the precedent set by the two preceding catalogs of USNM mammal types (Lyon and Osgood, 1909; Poole and Schantz, 1942), this current series exemplifies that collaborative nature of biological research among authors from the U.S. Geological Survey (Fisher) and the Smithsonian Institution (Ludwig), who have long cooperated to help ensure the proper stewardship of the National Collections of Mammals.

Fisher and Ludwig, with 76 years of federal service between them, are positioned to provide authoritative and complete information for each mammal type and to make that information easily available. The authors succeeded admirably in their efforts: researching all specimen information available in USNM archives, amending and updating collection records when necessary, and noting and correcting erroneous information on type specimens in the published literature. In addition, the companion digital images of each type (only partially complete at the present time) represent multiple views of the specimen, will reduce the future need to physically handle these specimens, and will provide a visual record of current specimen condition useful for establishing future practices of type usage and collection conservation. Fisher and Ludwig clearly have set the standard for future compilations of information on type specimens in collections at natural history museums.

This type catalog is another outstanding example of a reference narrowly intended for mammalian taxonomists, but one that also will prove broadly relevant for students of mammalian systematics for decades to come. Improved and expanded information about a museum's type holdings and better access to that information promote the relevance and importance of type collections and help ensure the continued proper stewardship of these irreplaceable specimens.

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19 August 2015

INTRODUCTION

The Division of Mammals, National Museum of Natural History (NMNH), Smithsonian Institution (formerly the United States National Museum, USNM) maintains the second largest collection of mammalian primary types in the world, numbering 3,269 published specimens (see Appendix E), of which 3,198 are currently extant in our type collection. Type specimens are “the international standards of reference that provide objectivity in zoological nomenclature” and as such “every institution in which name-bearing types are deposited should publish lists of name-bearing types in its possession or custody” (International Commission on Zoological Nomenclature, 1999:79). Although the official title of the museum was changed in 1969 (Yochelson, 1985) from the United States National Museum to the National Museum of Natural History, the correct abbreviation for the museum's cataloged holdings remains USNM. The abbreviation NMNH refers to the museum building and is not used as a prefix for catalog numbers, whereas USNM no longer refers to the museum itself and is only used in reference to museum catalog numbers.

The current work is the fourth and final publication in this series and covers the orders Carnivora, Perissodactyla, Artiodactyla, and Cetacea as arranged by Wilson and Reeder (2005). It follows the recently published Fisher and Ludwig (2012; 843 specimens reported for the order Rodentia, suborders Sciuromorpha and Castorimorpha), Fisher and Ludwig (2014; 971 specimens reported for the order Rodentia, suborders Myomorpha, Anomaluromorpha, and Hystricomorpha), and Fisher and Ludwig (2015; 841 specimens reported for the orders Didelphimorphia through Chiroptera, excluding Rodentia). Together, these four publications represent the third complete type catalog of USNM mammals published to date, following Lyon and Osgood (1909; 1,415 specimens reported) and Poole and Schantz (1942; 2,824 specimens reported). We continue to deviate from both Lyon and Osgood (1909) and Poole and Schantz (1942) and follow the precedent set by the NMNH Division of Fishes (Vari and Howe, 1991) and Division of Amphibians and Reptiles (Reynolds et al., 2007), as continued by Fisher and Ludwig (2012, 2014, 2015), in which the type collection is divided into smaller, more manageable taxonomic reports, rather than addressed in a single monograph.

CATEGORIES OF NAME-BEARING TYPES INCLUDED

Specimens included in this catalog are one of the following as defined by the International Code of Zoological Nomenclature (International Commission on Zoological Nomenclature, hereafter ICZN, 1999).

Holotype. The single specimen upon which a new nominal species-group taxon is based in the original publication (Article 73.1).

Syntype. Any one of the multiple specimens on which a species-group name is equally based when no holotype was specified in the original publication and no subsequent designation of a lectotype has been published (Article 73.2). Syntypes are

referred to as cotypes in Lyon and Osgood (1909) and Poole and Schantz (1942) as well as in other early literature.

Lectotype. One specimen selected from two or more specimens upon which a species-group name was originally based and designated in a publication subsequent to the original description to become the unique name bearer (Article 74.1).

Neotype. A specimen chosen as the name bearer of a species-group taxon if no holotype, lectotype, syntype, or prior neotype is believed to be extant (Article 75.1).

RESEARCH APPROACH

In the early 1970s, accounts from a copy of Poole and Schantz (1942) were physically cut out and pasted onto 5 × 7 index cards to create a master card file of types. Additional cards were created and added to the file as new taxa were described and their types installed in the collection. We checked the information on each card against the original description, the original skin label (when present), and the field catalog entry (when available). Information on each index card, often annotated by hand, thus served as the nucleus of each of the accounts. Other unpublished catalogs, such as the Museum Catalog, Merriam Collection Catalog, and X-Catalog, were consulted as needed.

Authors in Wilson and Reeder (2005) are followed for currently accepted names unless an online search of Zoological Record uncovered more recent taxonomic arrangement or we became aware of an error and attribution. In the taxonomic order presented herein (see the next section), this search was conducted from June 2014 for the beginning accounts through March 2015 for the later accounts. Each specimen record in the collection database was corrected as needed to reflect new information. The type publication citation was added to the electronic record if not already present.

Digital images will be created for each specimen and include dorsal, lateral, and ventral views of crania; dorsal and lateral views of mandibles; dorsal and ventral views of skins (lateral if possibly diagnostic); and both sides of all labels. All images feature a metric scale bar. Additional views will be included if deemed appropriate. For lateral images, the traditional view of the left aspect will be presented except for skulls whose right side is more complete because of damage on the left. We will record specimen damage not captured in these images in the associated metadata when readily apparent but will not inspect specimens for minute damage. Images will be uploaded to the specimen database as they become available and can be accessed via the Internet (<http://collections.mnh.si.edu/search/mammals/>). Images will be created in the order in which accounts are presented and are now available for the Sciuromorpha and Geomyidae. We anticipate it will take about eight years for all images to be completed for specimens in this catalog. These images will not only serve as indicators of specimen condition but also will allow researchers to verify certain characters of a type without having to visit the NMNH and handle the specimens, thereby providing a convenience to researchers and minimizing possible damage to irreplaceable specimens.

CLASSIFICATORY ORGANIZATION

Orders and families are arranged sequentially following Wilson and Reeder (2005). Within families, currently recognized genera are arranged alphabetically. Within each currently recognized genus, the specimen accounts are arranged alphabetically by original published name.

FORMAT OF ACCOUNTS

We follow the format set by Fisher and Ludwig (2014). Each account reads as follows:

- Original published name: Genus, species, and subspecies in bold followed by the author's or authors' names.
- Abbreviated type citation: Publication, volume, page, and date of publication. Dates are given as day, month (three-letter abbreviation), and year throughout.
- Currently recognized name: Genus, species, and subspecies, if different from the original published name, followed by the citation for the first use of current name combination for the taxon. Author names in parentheses indicate the generic name used in the original description is different than the current generic one. Current names are those used by the authors in Wilson and Reeder (2005) unless more recent authors are cited.
- Type designation (holotype, lectotype, neotype, or syntype): USNM catalog number(s), preparation of specimen, age and sex, date collected and collector(s) name(s), and original number, which is usually the field number.
- Type locality: Exact locality as given in the original description or lectotype designation, published restrictions, and supplementary data. Abbreviations are used for miles (mi), kilometers (km), feet (ft), and meters (m).
- Remarks: Additional information is provided as needed, but especially to explain types designated prior to becoming part of the USNM collection and reasons for considering certain specimens to be types when not specified as such in the original publication.

We make an effort to distinguish information that was included in the original description from that added later from other sources. Added information, such as amended or restricted localities, is given with citations. Brackets are used to identify supplementary data not contained in the original description and, when not from commonly used sources such as maps or online gazetteers, are attributed to a collector's Field Catalog (FC), the Smithsonian Institution's Museum Catalog (MC), the Merriam Collection Catalog (MCC), the skin label (SL), the X-Catalog (XC), or a citation. Parentheses are placed around metric equivalents and current place names when this information was not included in the original publication.

Prior to January 1893, the USNM used a double-number cataloging system in which skins and fluid-preserved specimens were entered in one catalog and skeletal material in another. Many older specimens therefore have two numbers associated

with them, and the proper museum record is indicated by a fraction such as 23651/31045. In this example, the numerator on a skin label indicates 23651 as the skin to which skull 31045 belongs; on the associated skull label, 31045/23651, the numerator indicates 31045 as a skull to which the skin 23651 belongs. This cataloging system was abandoned at the end of 1892, after which a single, continuous numbering system was implemented for all specimen parts. The new system was initiated in January 1893, beginning with number 50001. The C. Hart Merriam private collection (MCC), donated to the USNM in 1911 and mentioned in many accounts, also used the double-numbering system.

Beginning in 1896 with the Biological Survey and continuing through 5 October 1951 with the Fish and Wildlife Service, specimens incidentally acquired through exchange or purchase or received from or collected by persons other than permanent staff were entered in a separate catalog, known as the X-Catalog, prior to transfer to the Division of Mammals for formal cataloging. The X-Catalog thus served as an ersatz field catalog, and its entries frequently have data (referenced as XC) that were never entered into the museum catalog or onto skin labels. X-Catalog numbers are identified with an “-X” suffix.

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ACCOUNTS OF NAME-BEARING TYPE SPECIMENS

ORDER CARNIVORA BOWDICH, 1821

FAMILY FELIDAE FISCHER, 1817

Genus *Acinonyx* Brookes, 1828

Acinonyx jubatus raineyi Heller

Smithson. Misc. Collect. 61(19): 9, 8 Nov 1913a.

Holotype: USNM 182321. [Skin and skull]. Adult male. Collected 13 Oct 1911 by P. J. Rainey. Original number Heller 2639.

Type Locality: Ulu, Kapiti Plains [SL: Kapiti Station], [Eastern Province], British East Africa (Kenya).

Acinonyx jubatus velox Heller

Smithson. Misc. Collect. 61(19): 7, 8 Nov 1913a.

= *Acinonyx jubatus raineyi* Heller, 1913. See Smithers (1975:2) for name combination and Caro (2013:188) for current use.

Holotype: USNM 163096. [Skin and skull]. Adult male. Collected 12 Jun 1909 by K. Roosevelt. Original number Heller 107.

Type Locality: [SL: Sotik Agatis, Guaso Nyro (Ewaso Ng'iro)], Lolita Plains, [Rift Valley], British East Africa (Kenya).

Genus *Felis* Linnaeus, 1758

Felis ocreata nandae Heller

Smithson. Misc. Collect. 61(13): 14, 16 Sep 1913b.

= *Felis sylvestris ugandae* (Schwann, 1904). See Wozencraft (2005:537).

Holotype: USNM 182367. [Skin and skull]. Adult male. Collected 9 Feb 1912 by E. Heller. Original number 2688.

Type Locality: [SL: Kisumu], altitude 7,000 ft (2,134 m), headwaters of the Lukosa River, Nandi escarpment, [Rift Valley], British East Africa (Kenya).

Felis ocreata taitae Heller

Smithson. Misc. Collect. 61(13): 14, 16 Sep 1913b.

= *Felis sylvestris ugandae* (Schwann, 1904). See Wozencraft (2005:537).

Holotype: USNM 182220. [Skin and skull]. Adult female. Collected 27 Oct 1911 by E. Heller. Original number 2533.
Type Locality: Voi, [Coast Province], British East Africa (Kenya).

Genus *Herpailurus* Severtzov, 1858

We follow Sicuro (2010) and Segura et al. (2013) for use of the genus *Herpailurus* for the species *yagouarondi*.

Felis apache Mearns

Proc. Biol. Soc. Wash. 14: 150, 9 Aug 1901c.
= *Herpailurus yagouarondi cacomitli* (Berlandier, 1859). See de Oliveira (1998a:1)
Holotype: USNM 1373. Skull only. Youngish adult female. Collected on unknown date by Dr. [J. L.] Berlandier. [MC: Cataloged 25 Jan 1855]. No original number.
Type Locality: Matamoros, Tamaulipas, Mexico.

Felis cacomitli Berlandier

In Baird, Rep. U.S. Mexican Bound. Surv., vol. 2, pt. 2: 12 Jan 1859.
= *Herpailurus yagouarondi cacomitli* (Berlandier, 1859). See Weigel (1961:53).
Holotype: USNM 1426. Skull only. [Lyon and Osgood (1909:207): Adult] [MC: female]. Collected in [MC: 1840 by J. L. Berlandier]. Received from D. N. Couch. No original number.
Type Locality: [MC: Matamoros (Matamoros)], [Tamaulipas, Mexico].

Felis fossata Mearns

Proc. Biol. Soc. Wash. 14: 150, 9 Aug 1901c.
= *Herpailurus yagouarondi fossata* (Mearns, 1901). See Weigel (1961:53).
Holotype: USNM 7036. Skull only. Adult, sex not given. Collected on unknown date by Dr. [SL: A.] Schott. [MC: Original number 952. Cataloged 8 Jul 1866].
Type Locality: Merida, Yucatan, [Mexico].

Genus *Leopardus* Gray, 1842

Felis aequatorialis Mearns

Proc. U.S. Natl. Mus. 25: 246, 17 Sep 1902.
= *Leopardus pardalis aequatorialis* (Mearns, 1902). See J. A. Allen (1919:347).
Holotype: USNM 113267. [Skin and skull]. Adult female. Collected 2 Nov 1899 by G. Flemming. Original number 22.
Type Locality: Paramba, altitude 3,500 ft (1,067 m), [Imbabura], northern Ecuador.

Felis costaricensis Mearns

Proc. U.S. Natl. Mus. 25: 245, 17 Sep 1902.
Junior primary homonym of *Felis bangsi costaricensis* Merriam, 1901. Renamed *Felis mearnsi* by J. A. Allen (1904:71).
= *Leopardus pardalis aequatorialis* (Mearns, 1902). See Murray and Gardner (1997:1).

Holotype: USNM 14180. Skull only. Adult male. Collected by W. M. Gabb, date unknown. [MC: Cataloged 19 Nov 1874]. Original number [SL: 73].

Type Locality: Talamanca, [Limon], Costa Rica.

Remarks: Although the description was based on the skull, there should be a skin, USNM 12180, as well. The museum catalog for the skin is marked as not found, 22 Oct 1902. It is still missing.

Felis glaucula oaxacensis Nelson and Goldman

J. Mammal. 12: 303, 24 Aug 1931a.
= *Leopardus wiedii oaxacensis* (Nelson and Goldman, 1931). See de Oliveira (1998b:1).
Holotype: USNM 68169. Skin and skull. Adult male. Collected 31 Aug 1894 by [E. W.] Nelson and [E. A.] Goldman. Original number [SL: 6697].
Type Locality: Cerro San Felipe, altitude 10,000 ft (3,048 m), [Miller and Kellogg (1955:772): near Oaxaca], Oaxaca, Mexico.

Felis glaucula yucatanica Nelson and Goldman

J. Mammal. 12: 304, 24 Aug 1931a.
= *Leopardus wiedii yucatanicus* (Nelson and Goldman, 1931). See de Oliveira (1998b:1).
Holotype: USNM 8612. Skin only. Age and sex not given. Collected by [A.] Schott, date unknown. Cataloged 4 Aug 1866. Original number [MC: 955].
Type Locality: Merida, Yucatan, [Mexico].

Felis limitis Mearns

Proc. Biol. Soc. Wash. 14: 146, 9 Aug 1901a.
= *Leopardus pardalis albescens* (Pucheran, 1855). See Murray and Gardner (1997:1).
Holotype: USNM 32679/44602. Skin and skull. Adult male. Collected 4 Mar 1892 by F. B. Armstrong. Original number 102.
Type Locality: Brownsville, [Cameron County], Texas.

Felis pardalis nelsoni Goldman

J. Mammal. 6: 122, 12 May 1925.
= *Leopardus pardalis nelsoni* (Goldman, 1925). See Murray and Gardner (1997:1).
Holotype: USNM 32642/44565. Skin and skull. Old male. Collected 11 Feb 1892 by E. W. Nelson. Original number 1862.
Type Locality: Manzanillo, [FC: altitude 50 ft (15 m)], Colima, Mexico.

Felis pardalis sonoriensis Goldman

J. Mammal. 6: 123, 12 May 1925.
= *Leopardus pardalis sonoriensis* (Goldman, 1925). See Murray and Gardner (1997:1).
Holotype: USNM 96216. Skin and skull. Adult male. Collected 3 Dec 1898 by E. A. Goldman. Original number [FC: Nelson and Goldman] 13268.
Type Locality: Camoa, [FC: altitude about 800 ft (244 m)], Rio Mayo, Sonora, Mexico.

***Felis pirrensis* Goldman**

Smithson. Misc. Collect. 63(5): 4, 14 Mar 1914.

= *Leopardus wiedii pirrensis* (Goldman, 1914). See de Oliveira (1998b:1).

Holotype: USNM 179162. Skin and skull. Adult female. Collected 22 Mar 1912 by E. A. Goldman. Original number 21559.

Type Locality: Cana, altitude 2,000 ft (610 m), [FC: 1,800 ft (549 m)], [Darién], Panama.

***Felis wiedii cooperi* Goldman**

J. Mammal. 24: 384, 17 Aug 1943a.

= *Leopardus wiedii cooperi* (Goldman, 1943). See Wozencraft (2005:540).

Holotype: USNM 25. Skin only. Age and sex not given. Collected on unknown date by S. Cooper. Cataloged 13 Feb 1852. No original number.

Type Locality: Eagle Pass, [Maverick County], Texas.

***Lynchailurus colocolo wolffsohni* Garcia-Perea**

Am. Mus. Novit. 3096: 30, 19 May 1994.

= *Leopardus colocolo wolffsohni* (Garcia-Perea, 1994). See Wozencraft (2005:538).

Holotype: USNM 391853. Skin and skull. Adult of unknown sex. Collected [MC: Feb 1944?], collector unknown. No original number. Donated by G. Mann in 1949.

Type Locality: Rio Camarones, between 2,000 and 4,000 m, provincia Tarapaca, Chile.

Genus *Lynx* Kerr, 1792***Lynx baileyi* Merriam**

N. Am. Fauna 3: 79, 11 Sep 1890a.

= *Lynx rufus baileyi* Merriam, 1890. See Grinnell and Dixon (1924:349).

Holotype: USNM 186519. Skin and skull. Adult female. Collected 28 Dec 1888 by V. Bailey. Original number 466. Merriam collection number 5214/5909.

Type Locality: Moccasin Spring, [Hoffmeister (1986:529): Mohave County], Arizona.

Remarks: This specimen was published as Merriam collection number 5214/5909. It was cataloged as USNM 186519 on 25 Oct 1911.

***Lynx fasciatus pallescens* Merriam**

N. Am. Fauna 16: 104, 28 Oct 1899.

= *Lynx rufus pallescens* Merriam, 1899. See Grinnell and Dixon (1924:350).

Holotype: USNM 76585. [Skin and skull]. Adult male. Collected 10 Jan 1896, not 1895 as in original description, by D. N. Kaegi. Original number 23.

Type Locality: South base of Mount Adams, near Trout Lake, [Klickitat County], Washington.

***Lynx rufus californicus* Mearns**

Proc. U.S. Natl. Mus. 20: 2, 12 Jan 1897a. Preprint of Proc. U.S. Natl. Mus. 20: 458, 24 Dec 1897b.

Holotype: USNM 1588/37163. Skin and skull. Adult female. Collected 2 Feb 1856 by J. F. Hammond. No original number.
Type Locality: San Diego, [San Diego County], California.

***Lynx rufus eremicus* Mearns**

Proc. U.S. Natl. Mus. 20: 1, 12 Jan 1897a. Preprint of Proc. U.S. Natl. Mus. 20: 457, 24 Dec 1897b.

= *Lynx rufus baileyi* Merriam, 1890. See Grinnell and Dixon (1924:349).

Holotype: USNM 60676. Skin, skull, [and tail vertebrae]. Adult male. Collected 5 May 1894 by [E. A.] Mearns. Original number [FC: Mearns and Holzner] 3506.

Type Locality: New River, 6 mi (10 km) northwest of Laguna Station, on the Colorado Desert, San Diego (now Imperial) County, California.

***Lynx uinta* Merriam**

Proc. Biol. Soc. Wash. 15: 71, 22 Mar 1902a.

= *Lynx rufus pallescens* Merriam, 1899. See Grinnell and Dixon (1924:350).

Holotype: USNM 18915/25648. Skin and skull. Adult male. Collected 11 May 1890 by V. Bailey. Original number 1156.

Type Locality: Bridger Pass, south slope of Uinta Mountains, [Carbon County], Wyoming.

Genus *Panthera* Oken, 1816***Felis centralis* Mearns**

Proc. Biol. Soc. Wash. 14: 139, 9 Aug 1901b.

= *Panthera onca centralis* (Mearns, 1901). See Pocock (1939:419).

Holotype: USNM 14177/12177. Skull only. Adult, probably male. Collected on unknown date by W. M. Gabb. Original number [MC: 47]. Cataloged [MC: 19 Nov 1874].

Type Locality: Talamanca, [Miller and Kellogg (1955:768): probably near Sipurio, in valley of Rio Sixaola], [Limon], Costa Rica.

Remarks: The skin, USNM 12177, was missing at the time of description and still is.

***Felis bernandesii goldmani* Mearns**

Proc. Biol. Soc. Wash. 14: 142, 9 Aug 1901b.

= *Panthera onca goldmani* (Mearns, 1901). See Pocock (1939:421).

Holotype: USNM 105930. Skin only. Adult, sex not given. Collected 5 Jan 1901 by E. A. Goldman. No original number.

Type Locality: Yohaltan (Yohaltún), Campeche, Mexico.

Remarks: The museum catalog has a remark stating that this specimen was purchased.

***Felis leo nyanzae* Heller**

Smithson. Misc. Collect. 61(19): 4, 8 Nov 1913a.

= *Panthera leo nyanzae* (Heller, 1913). See Wozencraft (2005:546).

Holotype: USNM 164551. Skin [and fragments of skull]. Adult male. Received 30 Dec 1909. Gift of European residents

[SL and MC: M. Moses] to T. Roosevelt. Original number Heller 580.

Type Locality: Kampala, [Kampala], Uganda.

***Felis leo roosevelti* Heller**

Smithson. Misc. Collect. 61(19): 2, 8 Nov 1913a.

= *Panthera leo massaica* (Neumann, 1900). See Wozencraft (2005:546).

Holotype: USNM 144054. Skin, skull, [and brain in fluid]. Old male. Presented by Emperor (King) Menelik to President T. Roosevelt in 1904. [MC: Collected 19 Mar 1904]. Died at the National Zoological Park (NZIP) [SL: 14 Nov 1906], [NZIP data card: 13 Nov 1906]. Original number NZIP 1151/5307.

Type Locality: Near Addis Ababa (Adis Abeba), [Adis Abeba], highlands of Abyssinia (Ethiopia).

***Felis notialis* Hollister**

Proc. U.S. Natl. Mus. 48: 170, 16 Dec 1914a.

= *Panthera onca paraguensis* (Hollister, 1914). See Seymour (1989:1).

Holotype: USNM 4361. Skull only. Adult male. Collected Aug 1860 by T. J. Page. No original number.

Type Locality: [SL: Parana], San Jose, Entre Rios, Argentina.

***Felis onca arizonensis* Goldman**

Proc. Biol. Soc. Wash. 45: 144, 9 Sep 1932a.

= *Panthera onca arizonensis* (Goldman, 1932). See Pocock (1939:420).

Holotype: USNM 244507. Skin and skull. Adult male. Collected 12 Apr 1924 by J. Funk. [SL: Purchased through M. E. Musgrave]. No original number. X-Catalog number 23633-X.

Type Locality: Near Cibecue, Navajo County, Arizona.

***Felis onca coxi* Nelson and Goldman**

J. Mammal. 14: 225, 17 Aug 1933.

= *Panthera onca onca* (Linnaeus, 1758). See Pocock (1939:410).

Holotype: USNM 256388. Skull only. Adult female. Collected in 1931 by W. T. Cox. No original number.

Type Locality: North of Rio Doce, Espiritu Santo, Brazil.

***Felis onca paulensis* Nelson and Goldman**

J. Mammal. 14: 228, 17 Aug 1933.

= *Panthera onca paraguensis* (Hollister, 1914). See Seymour (1989:1).

Holotype: USNM 100123. Skull only. Adult female. Collected Jun 1900, collector unknown. Received from H. von Ihering. No original number. [SL: 2629-X].

Type Locality: Sao Paulo region, southeastern Brazil, exact locality undetermined.

***Felis onca veraecrucis* Nelson and Goldman**

J. Mammal. 14: 236, 17 Aug 1933.

= *Panthera onca veraecrucis* (Nelson and Goldman, 1933). See Pocock (1939:421).

Holotype: USNM 67403. Skull only. Adult male. Collected 24 Apr 1894 by [E. W.] Nelson and [E. A.] Goldman. Original number 6090.

Type Locality: San Andres Tuxtla, [FC: altitude 1,000 ft (305 m), Vera Cruz (Veracruz), Mexico.

***Felis paraguensis* Hollister**

Proc. U.S. Natl. Mus. 48: 169, 16 Dec 1914a.

= *Panthera onca paraguensis* (Hollister, 1914). See Seymour (1989:1).

Holotype: USNM 4128. Skull only. Adult male. Collected on unknown date by T. J. Page. Cataloged Jun 1860.

Type Locality: Paraguay.

Remarks: According to the museum catalog, there should be a skin in alcohol, USNM 2293, but it cannot be found.

***Felis pardus chui* Heller**

Smithson. Misc. Collect. 61(19): 6, 8 Nov 1913a.

= *Panthera pardus pardus* (Linnaeus, 1758). See Miththapala et al. (1996:1126).

Holotype: USNM 164764. [Skin and skull]. Adult male. Collected 26 Feb 1910 by E. Heller. Original number 653.

Type Locality: [FC: Lake 7 mi (11 km) east of] Gondokoro, [Central Equatoria], northern Uganda (South Sudan).

Remarks: Stein and Hayssen (2013:33) erroneously listed *chui* as a synonym of *fusca*.

***Felis pardus fortis* Heller**

Smithson. Misc. Collect. 61(19): 5, 8 Nov 1913a.

= *Panthera pardus pardus* (Linnaeus, 1758). See Miththapala et al. (1996:1126).

Holotype: USNM 181600. [Skin and skull]. Adult male. Collected [SL: 28 May 1911] by Mr. Aggate. Original number Heller 2309.

Type Locality: In the bush country bordering Aggate's farm, Loita Plains, Southern Guaso Nyiro district, [Rift Valley], British East Africa (Kenya).

***Leo leo hollisteri* J. A. Allen**

Bull. Am. Mus. Nat. Hist. 47: 229, 11 Apr 1924.

= *Panthera leo hollisteri* (J. A. Allen, 1924). See Wozencraft (2005:546).

Holotype: USNM 181568. Skin and skull. Adult male. Collected 18 Apr 1911 by E. Heller. Original number 2054.

Type Locality: Lime Springs, Sotik, [Rift Valley], British East Africa (Kenya).

Genus *Prionailurus* Severtzov, 1858

***Felis tinga* Lyon**

Proc. U.S. Natl. Mus. 34: 658, 14 Sep 1908.

= *Prionailurus bengalensis sumatranus* Horsfield, 1821. See Groves (1997:335).

Holotype: USNM 144325. Skin and skull. Adult female. Collected 24 Jan 1907 by W. L. Abbott. Original number 5022.

Type Locality: Pulo Tebing Tinggi (Pulau Tebingtinggi), [Riau], off east coast of Sumatra, [Indonesia].

Genus *Puma* Jardine, 1834

Felis arundivaga Hollister

Proc. Biol. Soc. Wash. 24: 176, 16 Jun 1911a.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 137122. Skin and skull. Adult male. Collected 17 Jun 1905 by B. V. Lilly. Original number [XC: 1]. [SL: 5431-X].
Type Locality: [XC: Cocodie Bayou], 12 mi (19 km) southwest of Vidalia, Concordia Parish, Louisiana.

Felis aztecus browni Merriam

Proc. Biol. Soc. Wash. 16: 73, 29 May 1903.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 125719. [Skull only]. Adult male. Collected Feb 1903 by H. Brown. No original number. [SL: 3908-X].
Type Locality: Lower Colorado River, 12 mi (19 km) south of Yuma, [Yuma County], Arizona.

Felis concolor acrocodia Goldman

J. Mammal. 24: 230, 8 Jun 1943b.
= *Puma concolor concolor* (Linnaeus, 1771). See Nascimento and Garbino (2013:195) for current use.
Holotype: USNM 273256. Skull only. Adult male. Collected 25 Nov 1925 by F. W. Miller. No original number. [SL: 31036-X].
Type Locality: Descalvados, Mato Grosso, Brazil.
Remarks: Formerly Colorado Museum of Natural History number 2390.

Felis concolor greeni Nelson and Goldman

J. Wash. Acad. Sci. 21: 211, 19 May 1931b.
= *Puma concolor concolor* (Linnaeus, 1771). See Nascimento and Garbino (2013:195) for current use.
Holotype: USNM 249896. [Skin and skull]. Adult male. Collected Nov 1930 by E. C. Green. No original number. [SL: 26600-X].
Type Locality: [XC: Near] Curraes Novos, Rio Grande do Norte, Brazil.

Felis concolor incarum Nelson and Goldman

J. Mammal. 10: 347, 11 Nov 1929a.
= *Puma concolor discolor* (Schreber, 1777). See Nascimento and Garbino (2013:197) for current use.
Holotype: USNM 194310. Skin and skull. Adult male. Collected Jul 1915 by E. Heller. Original number 566.
Type Locality: Piscocucho (Piscacucho), altitude 8,700 ft (2,651 m), Rio Urubamba, Department of Cuzco (Cusco), Peru.

Felis concolor kaibabensis Nelson and Goldman

J. Wash. Acad. Sci. 21: 209, 19 May 1931b.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).

Holotype: USNM 171186. [Skin and skull]. Adult male. Collected 15 Apr 1911 by J. T. Owens. No original number. X number 8432-X.

Type Locality: Powell Plateau, altitude 8,700 ft (2,652 m), Grand Canyon National Park, [Coconino County], Arizona.

Felis concolor mayensis Nelson and Goldman

J. Mammal. 10: 350, 11 Nov 1929a.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 244856. Skin, skull, and skeleton. Adult male. Collected 22 Aug 1923 by H. Malleis. Original number 465.
Type Locality: La Libertad, Department of Peten, Guatemala.

Felis concolor missoulensis Goldman

J. Mammal. 24: 229, 8 Jun 1943b.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 262116. Skin and skull. Adult male. Collected 30 Dec 1936 by R. and C. Thompson. Original number [SL: 64]. X-Catalog number 27706-X.
Type Locality: Sleeman Creek, about 10 mi (16 km) southwest of Missoula, Missoula County, Montana.

Felis concolor vancouverensis Nelson and Goldman

Proc. Biol. Soc. Wash. 45: 105, 15 Jul 1932a.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 211519. Skull only. Adult male. Collected 13 Sep 1915 by W. R. Kent. No original number. X-Catalog number 15040-X.
Type Locality: Campbell Lake, Vancouver Island, British Columbia, [Canada].

Felis concolor youngi Goldman

Proc. Biol. Soc. Wash. 49: 137, 22 Aug 1936a.
Primary junior homonym of *Felis youngi* Pei, 1934. Replaced with *Felis concolor stanleyana* by Goldman (1938a:63).
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 251419. Skin and skull. Young adult male. Collected 6 Oct 1934 by I. Wood. Original number [SL: 248]. X-Catalog number 27354-X.
Type Locality: Bruni Ranch, near Bruni, southeastern Webb County, Texas.

Felis hipolestes Merriam

Proc. Biol. Soc. Wash. 11: 219, 15 Jul 1897a.
= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005:545).
Holotype: USNM 57936. [Skin and skull]. Old male. Collected in 1892 by [SL: M. A. Frazier. Original number 1].
Type Locality: [SL: Cora], Wind River Mountains, near head of Big Wind River, [Fremont County], Wyoming.

Felis hipolestes aztecus Merriam

Proc. Wash. Acad. Sci. 3: 592, 11 Dec 1901a.

= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005: 545).

Holotype: USNM 99658. [Skin and skull]. Adult male. Collected 17 Oct 1899 by H. A. Cluff. Original number [XC: 1]. [SL: 2401-X].

Type Locality: Colonia Garcia, [Miller and Kellogg (1955:775): about 60 mi (97 km) southwest of Casas Grandes], Chihuahua, Mexico.

Felis hipolestes olympus Merriam

Proc. Biol. Soc. Wash. 11: 220, 15 Jul 1897a.

= *Puma concolor cougar* (Kerr, 1792). See Wozencraft (2005: 545).

Holotype: USNM 77973. [Skin and skull]. Adult male? Collected 18 Apr 1896 by T. Hayes. No original number.

Type Locality: Lake Cushman, [Mason County], Olympic Mountains, Washington.

Felis puma patagonica Merriam

Proc. Wash. Acad. Sci. 3: 598, 11 Dec 1901a.

= *Puma concolor puma* (Molina, 1782). See Wozencraft (2005:545).

Holotype: USNM 108693. Skin and skull. Young adult male. Collected by [SL: received from] J. B. Hatcher. Original number [SL: 3 for skull and 4 for skin. X-Catalog number 3020-X].

Type Locality: East base Andes Mountains, lat. 47°30' [SL: S], Patagonia (Santa Cruz, Argentina).

FAMILY VIVERRIDAE GRAY, 1821**Genus *Arctictis* Temminck, 1824***Arctictis niasensis* Lyon

Proc. U.S. Natl. Mus. 52: 443, 30 Dec 1916.

= *Arctictis binturong albifrons* F. G. Cuvier, 1822. See Wozencraft (2005:549).

Holotype: USNM 141230. Imperfect pelt. Age and sex not given. Collected by a native in 1905. Original number [MC: W. L. Abbott] 3970.

Type Locality: In the hills near Fadoro, [SL: south] Nias Island (Pulau Nias), [Sumatera Utara, Sumatra, Indonesia].

Genus *Arctogalidia* Merriam, 1897*Arctogalidia bicolor* Miller

Smithson. Misc. Collect. 61(21): 7, 29 Dec 1913a.

= *Arctogalidia trivirgata stigmaticus* (Temminck, 1853). See Pocock (1933a:996).

Holotype: USNM 151875. Skin, skull, [and skeleton]. Adult female. Collected 9 Jan 1908, not 1 Jan as in original description, by W. L. Abbott. Original number 5745, not 3745 as in original description.

Type Locality: [FC: Tanjong Batu], Klumpang Bay (Teluk Kelumpang), [Kalimantan Selatan], Dutch Southeast Borneo (Kalimantan), [Indonesia].

Arctogalidia depressa Miller

Smithson. Misc. Collect. 61(21): 8, 29 Dec 1913a.

= *Arctogalidia trivirgata fusca* Miller, 1906. See Pocock (1933a:990).

Holotype: USNM 115600. Skull only. Adult female. Collected 18 Aug 1902 by W. L. Abbott. Original number 1896.

Type Locality: Pulo Bintang (Pulau Bintan), Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Arctogalidia fusca Miller

Proc. U.S. Natl. Mus. 31: 269, 11 Sep 1906a.

= *Arctogalidia trivirgata fusca* Miller, 1906. See Pocock (1933a:990).

Holotype: USNM 122920. Skin and skull. Adult male. Collected 22 Jun 1903 by W. L. Abbott. Original number 2540.

Type Locality: Pulo (Pulau) Kundur, Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Arctogalidia inornata Miller

Proc. Wash. Acad. Sci. 3: 131, 26 Mar 1901a.

= *Arctogalidia trivirgata inornata* Miller, 1901. See Pocock (1933a:994).

Holotype: USNM 104859. Skin and skull. Adult male. Collected 23 Jun 1900 by [MC: W. L. Abbott]. Original number 502.

Type Locality: Bunguran Island (Pulau Natuna Besar), North Natunas (Kepulauan Natuna Besar), [Kepulauan Riau, Indonesia].

Arctogalidia macra Miller

Smithson. Misc. Collect. 61(21): 6, 29 Dec 1913a.

= *Arctogalidia trivirgata macra* Miller, 1913. See Chasen (1940:101).

Holotype: USNM 124172. Skin and skull. Adult female. Collected 26 Jan 1904 by W. L. Abbott. Original number 3075.

Type Locality: Domel Island (Letsok-aw Kyun), Mergui Archipelago, [Tanintharyi, Burma].

Arctogalidia major Miller

Proc. Biol. Soc. Wash. 19: 25, 26 Feb 1906b.

= *Arctogalidia trivirgata major* Miller, 1906. See Pocock (1933a:983).

Holotype: USNM 83510. Skin and skull. Young adult male. Collected 3 Sep 1896 by W. L. Abbott. No original number.

Type Locality: [MC: Lay Song Hong], Trong (Trang), Siam (Thailand).

Arctogalidia mima Miller

Smithson. Misc. Collect. 61(21): 7, 29 Dec 1913a.

= *Arctogalidia trivirgata simplex* Miller, 1902. See Pocock (1933a:992).

Holotype: USNM 142153. Skin and skull. Adult female. Collected 16 Sep 1905 by C. B. Kloss. Original number 10.
Type Locality: Semimba Bay (Teluk Senimba), Battam Island (Pulau Batam), Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Arctogalidia minor Lyon

Proc. U.S. Natl. Mus. 31: 599, 18 Dec 1906.
= *Arctogalidia trivirgata minor* Lyon, 1906. See Chasen (1940:100).
Holotype: USNM 124984. Skin and skull. Adult female. Collected 3 Aug 1904 by W. L. Abbott. Original number 3532.
Type Locality: Buding Bay (Teluk Buding), Billiton Island (Pulau Belitung), between Borneo and Sumatra, [Kepulauan Bangka Belitung, Sumatra, Indonesia].

Arctogalidia simplex Miller

Proc. Acad. Nat. Sci. Phila. 54: 156, 11 Jun 1902.
= *Arctogalidia trivirgata simplex* Miller, 1902. See Pocock (1933a:992).
Holotype: USNM 113069. Skin and skull. Adult male. Collected 30 Aug 1901 by W. L. Abbott. Original number 1254.
Type Locality: [FC: Mentuda Bay], Linga Island (Pulau Lingga), South China Sea, [Kepulauan Riau, Sumatra, Indonesia].

Arctogalidia sumatrana Lyon

Proc. U.S. Natl. Mus. 34: 653, 14 Sep 1908.
= *Arctogalidia trivirgata sumatrana* Lyon, 1908. See Chasen (1940:101).
Holotype: USNM 144120. Skin, skull, [and skeleton USNM 49930]. Adult male. Collected 19 Feb 1907 by W. L. Abbott. Original number 5054.
Type Locality: [FC: Sungai] Makapan, [Riau], eastern Sumatra, [Indonesia].

Arctogalidia tinga Lyon

Proc. U.S. Natl. Mus. 34: 652, 14 Sep 1908.
= *Arctogalidia trivirgata tinga* Lyon, 1908. See Chasen (1940:101).
Holotype: USNM 144324. Skin and skull. Adult male. Collected 20 Jan 1907 by W. L. Abbott. Original number 4992.
Type Locality: [FC: Sungai Tohor], Pulo (Pulau) Tebingtinggi, [Riau], east coast of Sumatra, [Indonesia].

Genus *Genetta* G. Cuvier, 1816

Genetta pumila Hollister

Smithson. Misc. Collect. 66(1): 4, 10 Feb 1916.
= *Genetta fieldiana* Du Chaillu, 1860. See remarks.
Holotype: USNM 182704. Skin and skull. Adult male. Collected 1 Sep 1911 by E. Heller. Original number 4193.
Type Locality: Mount Gargues, North Creek, altitude 6,000 ft (1,829 m), [Rift Valley], British East Africa (Kenya).
Remarks: Wozenkraft (2005:556) considered *pumila* a synonym of *G. maculata* Gray, 1830. The International Committee

on Zoological Nomenclature (ICZN, 2007:205), in opinion 2183, placed *maculata* Gray, 1830, on the Official Index of Rejected and Invalid Specific Names in Zoology. The oldest available name in the list of synonyms for this taxon in Wozenkraft (2005:556) is *fieldiana* Du Chaillu, 1860.

Genus *Hemigalus* Jourdan, 1837

Hemigale minor Miller

Smithson. Misc. Collect. 45: 43, 6 Nov 1903a.
= *Hemigalus derbyanus minor* Miller, 1903. See Pocock (1933a:1006).
Holotype: USNM 121651. Skin and skull. Adult female. Collected 27 Dec 1902 by W. L. Abbott. Original number 2173.
Type Locality: South Pagi Island (Pulau Pagai Selatan), [Sumatera Barat], Sumatra, [Indonesia].

Genus *Paguma* Gray, 1831

Paradoxurus robustus Miller

Proc. Biol. Soc. Wash. 19: 26, 26 Feb 1906b.
= *Paguma larvata robusta* Miller, 1906. See Robinson and Kloss (1918:244).
Holotype: USNM 86796. Skin and skull. Adult female. Collected 13 Feb 1899 by W. L. Abbott. No original number.
Type Locality: [SL: Khaw Sai Dow (Khao Soi Dao), altitude 2,000 ft (610 m)], Trong (Trang), Siam (Thailand).

Genus *Paradoxurus* F. Cuvier, 1821

Paradoxurus brunneipes Miller

Proc. U.S. Natl. Mus. 31: 269, 11 Sep 1906a.
= *Paradoxurus hermaphroditus musanga* (Raffles, 1821). See Pocock (1934:638).
Holotype: USNM 122886. Skin and skull. Adult male. Collected 24 Jun 1903 by W. L. Abbott. Original number 2549.
Type Locality: Pulo (Pulau) Kundur, Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Paradoxurus canescens Lyon

Proc. U.S. Natl. Mus. 31: 597, 18 Dec 1906.
= *Paradoxurus hermaphroditus canescens* Lyon, 1906. See Pocock (1934:648).
Holotype: USNM 124943. Skin and skull. Adult male. Collected 19 Jul 1904 by W. L. Abbott. Original number 3520.
Type Locality: Tanjong Batu, Island of Billiton (Pulau Belitung), between Sumatra and Borneo, [Kepulauan Bangka Belitung, Sumatra, Indonesia].

Paradoxurus hermaphroditus canus Miller

Smithson. Misc. Collect. 61(21): 5, 29 Dec 1913a.
Holotype: USNM 123976. Skin and skull. Adult female. Collected 7 Apr 1904 by W. L. Abbott. Original number 3209.

Type Locality: Pulo Terutau (Ko Tarutao), [Satun], Lower Siam (Thailand).

Paradoxurus hermaphroditus enganus Lyon

Proc. U.S. Natl. Mus. 52: 442, 30 Dec 1916.

Holotype: USNM 141026. Skin and skull. Adult female. Collected 11 Nov 1904 by W. L. Abbott. Original number 3782.

Type Locality: Engano Island (Pulau Enggano), [Bengkulu, Sumatra, Indonesia].

Paradoxurus hermaphroditus fuscus Miller

Smithson. Misc. Collect. 61(21): 3, 29 Dec 1913a.

= *Paradoxurus hermaphroditus milleri* Kloss, 1908. See Ellerman and Morrison-Scott (1951:288).

Holotype: USNM 124075. Skin and skull. Adult female. Collected 2 Jan 1904 by W. L. Abbott. Original number 2982.

Type Locality: [FC: Sir William] James Island (Pulo Buda), Mergui Archipelago, [Tanintharyi, Burma].

Paradoxurus hermaphroditus pallens Miller

Smithson. Misc. Collect. 61(21): 4, 29 Dec 1913a.

Holotype: USNM 124201. Skin and skull. Adult female. Collected 4 Feb 1904 by W. L. Abbott. Original number 3106.

Type Locality: Kisseraing Island, Mergui Archipelago, [Tanintharyi, Burma].

Paradoxurus hermaphroditus pugnax Miller

Smithson. Misc. Collect. 61(21): 4, 29 Dec 1913a.

Holotype: USNM 124100. Skin and skull. Adult female. Collected 5 Jan 1904 by W. L. Abbott. Original number 2999.

Type Locality: Sullivan (Lampi) Island, Mergui Archipelago, [Tanintharyi, Burma].

Paradoxurus hermaphroditus pulcher Miller

Smithson. Misc. Collect. 61(21): 5, 29 Dec 1913a.

Holotype: USNM 124142. Skin and skull. Adult female. Collected 11 Jan 1904 by W. L. Abbott. Original number 3033.

Type Locality: Clara Island, Mergui Archipelago, [Tanintharyi, Burma].

Paradoxurus hermaphroditus ravus Miller

Smithson. Misc. Collect. 61(21): 2, 29 Dec 1913a.

= *Paradoxurus hermaphroditus minor* Bonhote, 1903. See Wozencraft (2005:551).

Holotype: USNM 84429. Skin and skull. Adult female. Collected 5 Mar 1897 by W. L. Abbott. No original number.

Type Locality: Trong (Trang), [Trang], Lower Siam (Thailand).

Paradoxurus hermaphroditus sacer Miller

Smithson. Misc. Collect. 61(21): 4, 29 Dec 1913a.

Holotype: USNM 124032. Skin and skull. Adult female. Collected 27 Dec 1903 by W. L. Abbott. Original number 2934.

Type Locality: Saint Matthew (Za Det Gyi) Island, Mergui Archipelago, [Tanintharyi, Burma].

Paradoxurus hermaphroditus [sic] *senex* Miller

Smithson. Misc. Collect. 61(21): 3, 29 Dec 1913a.

Holotype: USNM 124171. Skin and skull. Immature male. Collected 26 Jan 1904 by W. L. Abbott. Original number 3074.

Type Locality: Domel Island (Letsok-aw Kyun), Mergui Archipelago, [Tanintharyi, Burma].

Paradoxurus hermaphroditus simplex Miller

Smithson. Misc. Collect. 61(21): 6, 29 Dec 1913a.

Holotype: USNM 124902. Skin and skull. Adult male. Collected 26 Jun 1904 by W. L. Abbott. Original number 3443.

Type Locality: [FC: West side] Klabat Bay (Teluk Klabat), Banka (Pulau Bangka), [Kepulauan Bangka Belitung, Sumatra, Indonesia].

Paradoxurus lignicolor Miller

Smithson. Misc. Collect. 45: 44, 6 Nov 1903a.

= *Paradoxurus hermaphroditus lignicolor* Miller, 1903. See Chasen and Kloss (1927:815).

Holotype: USNM 121645. Skin and skull. Adult male. Collected 19 Nov 1902 by W. L. Abbott. Original number 2068.

Type Locality: North Pagi Island (Pulau Pagai Utara), [Sumatera Barat], Sumatra, [Indonesia].

Paradoxurus padangus Lyon

Proc. U.S. Natl. Mus. 34: 655, 14 Sep 1908.

= *Paradoxurus hermaphroditus musanga* (Raffles, 1821). See Pocock (1934:638).

Holotype: USNM 143614. Skin and skull. Adult male. Collected 1 Apr 1906 by W. L. Abbott. Original number 4791.

Type Locality: Pulo (Pulau) Padang, [Riau], east coast of Sumatra, [Indonesia].

Paradoxurus parvus Miller

Smithson. Misc. Collect. 61(21): 1, 29 Dec 1913a.

= *Paradoxurus hermaphroditus parvus* Miller, 1913. See Pocock (1934:647).

Holotype: USNM 114175. Skin and skull. Adult male. Collected 15 Dec 1901 by W. L. Abbott. Original number 1385.

Type Locality: [FC: Sibabo], Simalur Island (Pulau Simeulue), [Aceh], off west coast of Sumatra, [Indonesia].

Genus *Viverricula* Hodgson, 1838

Viverricula malaccensis thai Kloss

J. Nat. Hist. Soc. Siam 3: 352, 31 Dec 1919.

= *Viverricula indica thai* Kloss, 1919. See Pocock (1933b:650).

Holotype: USNM 236629. Skin and skull. Aged female. Collected 20 Nov 1916 by C. B. Kloss. Original number 2449.

Type Locality: Prapatom, [SL: 30 mi (48 km) west of Bangkok], central Siam (Thailand).

Remarks: Published as C. B. Kloss number 2449. Cataloged as USNM 236629 on 19 Jul 1920.

FAMILY NANDINIIDAE POCOCK, 1929

Genus *Nandinia* Gray, 1843

Nandinia binotata arborea Heller

Smithson. Misc. Collect. 61(13): 9, 16 Sep 1913b.

Holotype: USNM 182374. [Skin and skull]. Adult male. Collected 11 Feb 1912 by E. Heller. Original number 2695.

Type Locality: Lukosa River, northeast of Kisumu, British East Africa (Kenya).

FAMILY HERPESTIDAE BONAPARTE, 1845

Genus *Atilax* F. Cuvier, 1826

Mungos paludinosus rubescens Hollister

Proc. Biol. Soc. Wash. 25: 1, 23 Jan 1912a.

= *Atilax paludinosus rubescens* (Hollister, 1912). See Hollister (1918:127).

Holotype: USNM 19775/35251. Skin and skull. Adult male. Collected 8 Nov 1889 by W. L. Abbott. Original number [SL: 2a].

Type Locality: Mount Kilimanjaro, altitude 4,000 ft (1,219 m), [Kilimanjaro, Tanzania], Africa.

Genus *Bdeogale* Peters, 1850

Bdeogale crassicauda omnivora Heller

Smithson. Misc. Collect. 61(13): 12, 16 Sep 1913b.

Holotype: USNM 182275. [Skin, skull, and embryo numbered USNM 184370 in alcohol]. Adult female. Collected 21 Dec 1911 by E. Heller. Original number 2588.

Type Locality: Mazeras, [Coast Province], British East Africa (Kenya).

Genus *Galerella* Gray, 1865

Mungos dentifer Heller

Smithson. Misc. Collect. 61(13): 10, 16 Sep 1913b.

= *Galerella sanguinea dentifer* (Heller, 1913). See Wozencraft (2005:566).

Holotype: USNM 182732. [Skin and skull]. Adult female. Collected 14 Dec 1911 by E. Heller. Original number 4865.

Type Locality: Maji-ya-Chumvi, [Coast Province], British East Africa (Kenya).

Remarks: Although Poole and Schantz (1942:104) stated that the skull was in good condition, it could not be found in 1970 and is still missing.

Mungos sanguineus orestes Heller

Smithson. Misc. Collect. 56(17): 15, 28 Feb 1911.

= *Galerella sanguinea orestes* (Heller, 1911). See J. A. Allen (1924:178).

Holotype: USNM 164152. [Skin and skull.] Adult male. Collected 12 Oct 1909 by J. A. Loring. Original number 7934.

Type Locality: West slope of Mt. Kenia (Kenya), altitude 8,500 ft (2,591 m), British East Africa (Kenya).

Mungos sanguineus parvipes Hollister

Smithson. Misc. Collect. 66(1): 5, 10 Feb 1916.

= *Galerella sanguinea parvipes* (Hollister, 1916). See Wozencraft (2005:566).

Holotype: USNM 182739. Skin and skull. Adult male. Collected 5 Feb 1912 by E. Heller. Original number 5601.

Type Locality: Kaimosi, [Rift Valley], British East Africa (Kenya).

Genus *Helogale* Gray, 1862

Helogale undulata affinis Hollister

Smithson. Misc. Collect. 66(1): 7, 10 Feb 1916.

= *Helogale parvula affinis* Hollister, 1916. Status uncertain according to Coetzee (1977:31), and more recent authors do not mention it. Wozencraft (1993:304) listed *affinis* as a synonym of *parvula* of unspecified rank.

Holotype: USNM 182715. Skin and skull. Adult male. Collected 2 Sep 1911 by E. Heller. Original number 4296.

Type Locality: Summit of Mount Lololokwi, altitude 6,000 ft (1,829 m), British East Africa (Kenya).

Genus *Ichneumia* I. Geoffroy, 1837

Mungos albicaudus dialeucos Hollister

Smithson. Misc. Collect. 66(1): 6, 10 Feb 1916.

= *Ichneumia albicauda dialeucos* (Hollister, 1916). See Hollister (1918:131).

Holotype: USNM 184794. Skin and skull. Adult male. Collected 18 Sep 1911 by E. Heller. Original number [SL: 693].

Type Locality: Mount Lololokwi, British East Africa (Kenya).

Mungos albicaudus ferox Heller

Smithson. Misc. Collect. 61(13): 11, 16 Sep 1913b.

= *Ichneumia albicauda ibeana* (Thomas, 1904). See Hollister (1918:130).

Holotype: USNM 163294. [Skin, skull, and partial skeleton]. Adult female. Collected 25 Nov 1909 by E. A. Mearns. Original number 7275.

Type Locality: Changamwe, [Coast Province], British East Africa (Kenya).

Genus *Mungos* E. Geoffroy and G. Cuvier, 1795

Crossarchus fasciatus colonus Heller

Smithson. Misc. Collect. 56(17): 16, 28 Feb 1911.

= *Mungos mungo colonus* (Heller, 1911). See G. M. Allen and Lawrence (1936:65).

Holotype: USNM 162132. [Skin and skull]. Adult female. Collected 21 Jun 1909 by E. Heller and [SL: J. A. Loring]. Original number [FC: JAL] 6396.

Type Locality: Southern Guaso Nyiro (Ewaso Ngiro) River, Sotik District, [Rift Valley], British East Africa (Kenya).

FAMILY HYAENIDAE GRAY, 1828

Genus *Crocuta* Kaup, 1828

Crocuta crocuta fisi Heller

Smithson. Misc. Collect. 61(22): 5, 26 Jan 1914a.

= *Crocuta crocuta* (Erxleben, 1777). Subspecies not recognized by Wozencraft (2005:572).

Holotype: USNM 182078. [Skin and skull]. Adult male. Collected 23 Jul 1911 by E. Heller. Original number 2385.

Type Locality: Merille Waterholes, [SL: Marsabit Road], midway between the Northern Guaso Nyiro (Ewaso Ngiro) River and Mount Marsabit, [Eastern Province], British East Africa (Kenya).

Genus *Proteles* I. Geoffroy, 1824

Proteles cristata termes Heller

Smithson. Misc. Collect. 61(13): 9, 16 Sep 1913b.

= *Proteles cristata* (Sparman, 1783). Subspecies not recognized by Wozencraft (2005:572).

Holotype: USNM 181523. [Skin, skull, and skeleton]. Adult female. Collected 8 May 1911 by E. Heller. Original number 2154.

Type Locality: [MC: Kabalot Hill, Sotik], headwaters of the Amala River, west of Loita Plains, [Rift Valley], British East Africa (Kenya).

FAMILY CANIDAE FISCHER, 1817

Genus *Canis* Linnaeus, 1758

Canis estor Merriam

Proc. Biol. Soc. Wash. 11: 31, 15 Mar 1897b.

= *Canis latrans mearnsi* Merriam, 1897. See Jackson (1951:298).

Holotype: USNM 57141. [Skin and skull]. Adult female. Collected 20 Nov 1893 by J. A. Loring. Original number 1379.

Type Locality: Noland's Ranch [SL: or Trading Post], San Juan River, [San Juan County], [SL: southwestern] Utah.

Canis floridanus Miller

Proc. Biol. Soc. Wash. 25: 95, 4 May 1912a.

= *Canis rufus floridanus* Miller, 1912. See Goldman (1937a:45) for subspecific designation and Chambers et al. (2012:34) for use of *C. rufus*.

Holotype: USNM 19376/38488. Skin and skull. Adult female. Collected 12 Aug 1890 by [SL: I. Thomas], presented by W. L. Ralph.

Type Locality: Horse Landing, St. Johns River, [MC: about 12 mi (19 km) south of Palatka], [Putnam County], Florida.

Canis frustror Woodhouse

Proc. Acad. Nat. Sci. Phila. 5: 147, recommended for publication 4 Feb 1851.

= *Canis latrans frustror* Woodhouse, 1851. See Jackson (1951:271).

Lectotype as designated herein: USNM 4105. Skin only. Young male. Collected in Aug 1850 by S. W. Woodhouse. No original number.

Type Locality: Red Fork of the Arkansas River, now Cimarron River, near 97° west longitude near the present town of Perkins, Payne County, Oklahoma.

Remarks: A holotype was not designated in the original description, and no museum numbers were given. Woodhouse (1851:147) based his description on two specimens, a male and female, both of which were young and had not lost their milk teeth. No record of these skulls can be found in the museum catalog, but two skins are present, USNM 4105 and USNM 4106, and a juvenile male and female are entered as *Canis latrans* from Red Fork of Ark., Aug 1850, Woodhouse. These specimens are unquestionably the two specimens Woodhouse described. The entry for USNM 4105 is marked "Type of *Canis frustror* Woodhouse." This catalog entry does not technically serve as designation of a lectotype, so we therefore designate USNM 4105 as lectotype to attach the name *frustror* to a single specimen and to fix the type locality as given above. According to Koopman (1976:21), the skull to the lectotype may be in the collection of the Philadelphia Academy of Natural Sciences of Drexel University as ANSP 2305.

Canis goldmani Merriam

Proc. Biol. Soc. Wash. 17: 157, 6 Oct 1904a.

= *Canis latrans goldmani* Merriam, 1904. See Nelson (1932:224).

Holotype: USNM 133204. [Skin and skull]. Adult female. Collected 25 Apr 1904 by E. A. Goldman. Original number [FC: Nelson and Goldman] 16725.

Type Locality: San Vicente, [FC: altitude 3,800 ft (1,158 m)], Chiapas, Mexico, near Guatemala border.

Canis hondurensis Goldman

J. Wash. Acad. Sci. 26: 33, 15 Jan 1936b.

= *Canis latrans hondurensis* Goldman, 1936. See Jackson (1951:313).

Holotype: USNM 251447. Skin and skull. Adult male. Collected 18 Aug 1934 by C. F. Underwood. Original number [SL: 1247]. X-Catalog number 27352[-X].

Type Locality: Cerro Guinote (Quinote), northeast of Archaga, on the Talanga road north of Tegucigalpa, [Francisco Morazan], Honduras.

***Canis jamesi* Townsend**

Bull. Am. Mus. Nat. Hist. 31: 130, 14 Jun 1912.
 = *Canis latrans jamesi* Townsend, 1912. See Nelson (1932:224).
 Holotype: USNM 198402. [Skin and skull]. [Poole and Schantz (1942:42) Adult] male. Collected 13 Apr [SL: 1911] by [SL: H. E. Anthony. Original number 147].
 Type Locality: Tiburon Island, [Gulf of California, Sonora, Mexico].
 Remarks: Published as American Museum number 31987. Cataloged as USNM 198402 on 26 Jun 1914.

***Canis latrans thamnoss* Jackson**

Proc. Biol. Soc. Wash. 62: 31, 17 Mar 1949.
 Holotype: USNM 233034. Skin and skull. Young adult male. Collected 4 Sep 1919 by H. H. Sheldon. Original number 1073.
 Type Locality: [SL: Farm of L. R. Brigham], Basswood Island, Apostle Islands, Ashland County, Wisconsin.

***Canis latrans umpquensis* Jackson**

Proc. Biol. Soc. Wash. 62: 31, 17 Mar 1949.
 Holotype: USNM 216537. Skin and skull. Young adult female. Collected 11 Mar 1916 by W. L. Tison. Original number [XC: 16]. Biological Surveys number 15880-X.
 Type Locality: 5 mi (8 km) southeast of Drew, Douglas County, Oregon.

***Canis lestes* Merriam**

Proc. Biol. Soc. Wash. 11: 25, 15 Mar 1897b.
 = *Canis latrans lestes* Merriam, 1897. See Nelson (1932:223).
 Holotype: USNM 24552/32347. Skin and skull. Adult male. Collected 21 Nov 1890, not 30 Nov as in original description, by V. Bailey. Original number 2223.
 Type Locality: Toyabe Mountains, near Cloverdale, [Nye County], Nevada.

***Canis lupus alces* Goldman**

Proc. Biol. Soc. Wash. 54: 109, 30 Sep 1941a.
 = *Canis lupus occidentalis* Richardson, 1829. See Nowak (1995:396) for name combination and Chambers et al. (2012:38) for current use.
 Holotype: USNM 147471. Skull only. Adult female. Collected in 1904 by C. A. Lambert. No original number. X-Catalog number 5133[-X].
 Type Locality: Kachemak Bay, Kenai Peninsula, Alaska.

***Canis lupus hudsonicus* Goldman**

Proc. Biol. Soc. Wash. 54: 112, 30 Sep 1941a.
 = *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.
 Holotype: USNM 180281. Skin, skull, [and partial skeleton]. Adult male. Collected 4 Jan 1912 by H. V. Radford. Original number 92.

Type Locality: Head of Schultz Lake, Keewatin, [Nunavut], Canada.

***Canis lupus irremotus* Goldman**

J. Mammal. 18: 41, 14 Feb 1937a.
 = *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.
 Holotype: USNM 214869. Skin and skull. Adult male. Collected 19 Apr 1916 by M. E. Martin. Original number [XC: 7]. X-Catalog number 16243[-X].
 Type Locality: Red Lodge, Carbon County, southwestern Montana.

***Canis lupus labradorius* Goldman**

J. Mammal. 18: 38, 14 Feb 1937a.
 = *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.
 Holotype: USNM 23136. Skull only. Probably adult female. Collected in 1882 or 1883 by L. M. Turner. Original number 2190.
 Type Locality: Vicinity of Fort Chimo (Kuujjuaq), [Ungava District], Quebec, Canada.

***Canis lupus ligoni* Goldman**

J. Mammal. 18: 39, 14 Feb 1937a.
 = *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.
 Holotype: USNM 243323. Skin and skull. Adult male. Collected 7 Nov 1922 by J. S. Ligon. Original number [XC: 373]. X-Catalog number 23022[-X].
 Type Locality: Head of Duncan Canal, Kuprenof Island, Alexander Archipelago, Alaska.

***Canis lupus mogollonensis* Goldman**

J. Mammal. 18: 43, 14 Feb 1937a.
 = *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.
 Holotype: USNM 224548. Skin and skull. Adult male. Collected 1 Jul 1916 by B. Burnam. Original number [XC: 39]. X-Catalog number 18119[-X].
 Type Locality: S. A. Creek, 10 mi (16 km) northwest of Luna, Catron County, New Mexico.

***Canis lupus monstrabilis* Goldman**

J. Mammal. 18: 42, 14 Feb 1937a.
 = *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.
 Holotype: USNM 209497. Skin and skull. Adult male. Collected 3 Sep 1915 by W. F. DeLong. Original number [XC: 1]. X-Catalog number 12646[-X].

Type Locality: 10 mi (16 km) south of Rankin, Upton County, Texas.

***Canis lupus youngi* Goldman**

J. Mammal. 18: 40, 14 Feb 1937a.

= *Canis lupus nubilus* Say, 1823. See Nowak (1995:396) for name combination and Chambers et al. (2012:39) for current use.

Holotype: USNM 224001. Skin and skull. Adult male. Collected 11 Dec 1916 by B. B. Turner. Original number [XC: 161]. X-Catalog number 17413[-X].

Type Locality: Harts Draw, north slope of Blue Mountains, 20 mi (32 km) northwest of Monticello, San Juan County, Utah.

***Canis mearnsi* Merriam**

Proc. Biol. Soc. Wash. 11: 30, 15 Mar 1897b.

= *Canis latrans mearnsi* Merriam, 1897. See Nelson (1932:224).

Holotype: USNM 59899. [Skin and skull]. Young adult male. Collected 5 Feb 1894 by E. A. Mearns and F. X. Holzner. Original number 2925.

Type Locality: Quitobaquita (Quitobaquito), Pima County, Arizona.

***Canis microdon* Merriam**

Proc. Biol. Soc. Wash. 11: 29, 15 Mar 1897b.

= *Canis latrans microdon* Merriam, 1897. See Nelson (1932:224).

Holotype: USNM 27555/39654. Skin, skull, [and baculum]. Adult male. Collected 28 Apr 1891 by W. Lloyd. Original number 478.

Type Locality: Mier, on the Rio Grande River, State of Tamaulipas, Mexico.

***Canis nebracensis texensis* Bailey**

N. Am. Fauna 25: 175, 24 Oct 1905.

= *Canis latrans texensis* Bailey, 1905. See Nelson (1932:224).

Holotype: USNM 116277. [Skin and skull]. Young adult male. Collected 14 Dec 1901 by J. M. Priour. Original number [XC: 2]. 3478-X.

Type Locality: [XC: Santa Getrudis (Gertrudis)], 45 mi (72 km) southwest of Corpus Christi, [Kleberg County], Texas.

***Canis nubilus baileyi* Nelson and Goldman**

J. Mammal. 10: 165, 9 May 1929b.

= *Canis lupus baileyi* Nelson and Goldman, 1929. See Goldman (1937a:45).

Holotype: USNM 98312. [Skin and skull]. Adult male. Collected 10 Jul 1899 by E. W. Nelson and E. A. Goldman. Original number 13895.

Type Locality: [FC: Near] Colonia Garcia, altitude 6,700 ft (2,043 m), about 60 mi (97 km) southwest of Casas Grandes, Chihuahua, Mexico.

***Canis pallidus* Merriam**

Proc. Biol. Soc. Wash. 11: 24, 15 Mar 1897b.

= *Canis latrans latrans* Say, 1823. See Jackson (1951:257).

Holotype: USNM 77093. [Skin and skull]. Young adult male. Collected 12 Mar 1896 by E. E. Fast. Original number [SL: 5].

Type Locality: Johnstown, Brown County, Nebraska.

***Canis peninsulae* Merriam**

Proc. Biol. Soc. Wash. 11: 28, 15 Mar 1897b.

= *Canis latrans peninsulae* Merriam, 1897. See Nelson (1932:224).

Holotype: USNM 74245. [Skin and skull]. Adult male. Collected 15 May 1895 by J. E. McLellan. Original number [SL: 1354].

Type Locality: Santa Anita, Cape (Cabo) San Lucas, Lower California (Baja California Sur), [FC: Mexico].

***Canis rufus gregoryi* Goldman**

J. Mammal. 18: 44, 14 Feb 1937a.

See Chambers et al. (2012:34) for use of *C. rufus*.

Holotype: USNM 136731. Skin and skull. Adult male. Collected 25 Apr 1905 by B. V. Lilly. Original number [SL: 2]. X-Catalog number 5338[-X].

Type Locality: Macks Bayou, 3 mi (5 km) east of Tensas River, 18 mi (29 km) southwest of Tallulah, Madison County (Parish), Louisiana.

***Canis torquatus* Baird**

Rep. U.S. Mexican Bound. Surv., vol. 2, pt. 2: 15 Jan 1859.

= Undeterminable. See Goldman (1944:396).

Holotype: USNM 1379. Skull only. [MC: Young], sex not given. Collected on unknown date by J. L. Berlandier. [MC: Cataloged 26 Jan 1855].

Type Locality: [MC: Saltillo], [Coahuila, Mexico].

Remarks: This specimen cannot be found, and according to Goldman (1944:396), there is a question as to whether it is a *C. lupus* or *C. latrans*.

***Canis tundrarum* Miller**

Smithson. Misc. Collect. 59(15): 1, 8 Jun 1912b.

= *Canis lupus occidentalis* Richardson, 1829. See Nowak (1995:396) for name combination and Chambers et al. (2012:38) for current use.

Holotype: USNM 16748. Skull only. Adult, probably male, collected [MC: 23 Feb 1883] by [SL: P. H. Ray]. Original number [MC: 1119].

Type Locality: Point Barrow, [North Slope], Alaska.

***Canis vigilis* Merriam**

Proc. Biol. Soc. Wash. 11: 33, 15 Mar 1897b.

= *Canis latrans vigilis* Merriam, 1897. See Nelson (1932:224).

Holotype: USNM 32627/44550. Skin and skull. Young adult female. Collected 6 Feb 1892 by E. W. Nelson. Original number 1840.

Type Locality: Manzanillo, [FC: altitude 50 ft (15 m)], Colima, Mexico.

***Thos adustus bweha* Heller**

Smithson. Misc. Collect. 63(7): 3, 24 Jun 1914b.
 = *Canis adustus bweha* (Heller, 1914). See Coetsee (1977:7).
 Holotype: USNM 182342. [Skin and skull]. Adult male. Collected 20 Jan 1912 by E. Heller. Original number 2663.
 Type Locality: [MC: Nyangnori], Kisumu, [Nyanza], British East Africa (Kenya).

***Thos adustus notatus* Heller**

Smithson. Misc. Collect. 63(7): 4, 24 Jun 1914b.
 = *Canis adustus notatus* (Heller, 1914). See Wozencraft (2005:574).
 Holotype: USNM 181486. [Skin and skull]. Young adult male. Collected 16 Apr 1911 by E. Heller. Original number 2033.
 Type Locality: [SL: Guaso Nyiro (Ewaso Ngiro)], Loita Plains, [Rift Valley], British East Africa (Kenya).

***Thos aureus bea* Heller**

Smithson. Misc. Collect. 63(7): 5, 24 Jun 1914b.
 = *Canis aureus bea* (Heller, 1914). See Coetsee (1977:8).
 Holotype: USNM 162904. [Skin and skull]. Adult female. Collected 4 Jul 1909 by E. Heller. Original number 200.
 Type Locality: [SL: Guaso Nyiro (Ewaso Ngiro), Sotik], Loita Plains, [Rift Valley], British East Africa (Kenya).

***Thos mesomelas elgonae* Heller**

Smithson. Misc. Collect. 63(7): 6, 24 Jun 1914b.
 = *Canis mesomelas schmidti* Noack, 1897. See Walton and Joly (2003:1).
 Holotype: USNM 164699. [Skin, skull, and partial skeleton]. Adult male. Collected 13 Nov 1909 by E. Heller. Original number 466.
 Type Locality: [MC: Nzoia River], Uasin Gishu (Ewaso Ngishu) Plateau, altitude 8,000 ft (2,438 m), [Western Province], British East Africa (Kenya).

***Thos mesomelas mcmillani* Heller**

Smithson. Misc. Collect. 63(7): 6, 24 Jun 1914b.
 = *Canis mesomelas schmidti* Noack, 1897. See Walton and Joly (2003:1).
 Holotype: USNM 181483. [Skin and skull]. Adult female. Collected 5 Apr 1911 by E. Heller. Original number 2003.
 Type Locality: Mtoto (Mtito) Andei Station, altitude 2,500 ft (762 m), [Coast Province], British East Africa (Kenya).

Genus *Otocyon* Muller, 1836***Otocyon virgatus* Miller**

Smithson. Misc. Collect. 52(4): 485, 18 Dec 1909.
 = *Otocyon megalotis virgatus* Miller, 1909. See G. M. Allen (1939:192) for name combination and Nel and Mass (2013:78) for current use.
 Holotype: USNM 162126, not 162125 as in original description. Skin and skull. Adult male. Collected 8 Aug 1909 by J. A. Loring. Original number 6962.

Type Locality: Naivasha Station, [Rift Valley], British East Africa (Kenya).

Remarks: Wozencraft (2005:582) overlooked *virgatus* Miller.

Genus *Speothos* Lund, 1839***Icticyon panamensis* Goldman**

Smithson. Misc. Collect. 60(2): 14, 20 Sep 1912a.
 = *Speothos venaticus panamensis* (Goldman, 1912). See Hershkovitz (1957:161).
 Holotype: USNM 179046. [Skin and skull]. Adult female. Collected 28 Apr 1912 by E. A. Goldman. Original number 21655.
 Type Locality: Near head of Rio Limon, altitude 5,000 ft (1,524 m), Mount Pirri (Cerro Pirre), [Darrien], eastern Panama.

Genus *Urocyon* Baird, 1857***Urocyon californicus townsendi* Merriam**

N. Am. Fauna 16: 103, 28 Oct 1899.
 = *Urocyon cinereoargenteus townsendi* Merriam, 1899. See Grinnell (1933:110).
 Holotype: USNM 14130. [Skin only]. [Poole and Schantz (1942:47): Adult], sex not given. Collected 11 Nov 1893 by C. H. Townsend. Original number 49.
 Type Locality: Baird, Shasta County, California.

***Urocyon catalinae* Merriam**

Proc. Biol. Soc. Wash. 16: 74, 29 May 1903.
 = *Urocyon littoralis catalinae* Merriam, 1903. See Grinnell (1933:112).
 Holotype: USNM 33223/45228. Skin and skull. Adult male. [SL: Collected 14 Apr 1892 by C. P. Streater. Original number 1801].
 Type Locality: [FC: Canyon back of Avalon], [Santa] Catalina Island, Channel Islands, [Los Angeles County], California.
 Remarks: The type of this taxon was given as the skull USNM 45228 in the original description; the skin, USNM 33223, belongs to it.

***Urocyon cinereoargenteus borealis* Merriam**

Proc. Biol. Soc. Wash. 16: 74, 29 May 1903.
 Holotype: USNM 119725. [Skin and skull]. Adult male. Collected 17 Nov 1902 by A. H. Thayer. [SL: 3847-X].
 Type Locality: Marlboro, 7 mi (11 km) from Monadnock, [Cheshire County], New Hampshire.

***Urocyon cinereoargenteus californicus* Mearns**

Proc. U.S. Natl. Mus. 20: 3, 12 Jan 1897a. Preprint of Proc. U.S. Natl. Mus. 20: 459, 24 Dec 1897b.
 Holotype: USNM 62873. Skin and skull. [Lyon and Osgood (1909:211): Old] adult male. Collected 6 Jul 1895 by A. W. Anthony. Original number 41.
 Type Locality: San Jacinto Mountains, altitude 8,000 ft (2,838 m), Riverside County, California.

***Urocyon cinereoargenteus colimensis* Goldman**

J. Wash. Acad. Sci. 28: 495, 15 Nov 1938b.

= *Urocyon cinereoargenteus nigrirostris* (Lichtenstein, 1850).
See Hall and Kelson (1959:861).

Holotype: USNM 33519/45564. Skin and skull. Adult male.
Collected 1 Apr 1892 by [E. W.] Nelson and [E. A.] Goldman.
Original number [FC: EWN] 2378.

Type Locality: 3 mi (5 km) west of city of Colima, altitude
1,700 ft (318 m), Colima, Mexico.

Remarks: Wozenkraft (2005:582) overlooked *colimensis* Goldman.

***Urocyon cinereoargenteus orinomus* Goldman**

J. Wash. Acad. Sci. 28: 497, 15 Nov 1938b.

Holotype: USNM 58411. Skin and skull. Adult female. Col-
lected 18 Jan 1894 by [E. W.] Nelson and [E. A.] Goldman.
Original number 5679.

Type Locality: Orizaba, altitude 4,000 ft (1,219 m), Vera Cruz
(Veracruz), Mexico.

***Urocyon cinereoargenteus texensis* Mearns**

Proc. U.S. Natl. Mus. 20: 2, 12 Jan 1897a. Preprint of Proc. U.S.
Natl. Mus. 20: 459, 24 Dec 1897b.

= *Urocyon cinereoargenteus scottii* Mearns, 1891. See Goldman
(1938b:495).

Holotype: USNM 130/1116. Skin and skull. [Lyon and Osgood
(1909:212): Adult], sex not given. Collected [SL: Jan] 1851
by A. Schott. No original number.

Type Locality: [SL: Rio Bravo], San Pedro, near Eagle Pass,
[Maverick County], Texas.

***Urocyon clementae* Merriam**

Proc. Biol. Soc. Wash. 16: 75, 29 May 1903.

= *Urocyon littoralis clementae* Merriam, 1903. See Grinnell and
Linsdale (1930:154).

Holotype: USNM 92034. [Skin and skull]. Adult male. Collected
[SL: 5 Jun 1897 by H. A. Gaylord. Original number 157.
1163-X].

Type Locality: San Clemente Island, Channel Islands, [Los Ange-
les County], California.

***Urocyon guatemalae* Miller**

Proc. Acad. Nat. Sci. Phila. 51: 278, 26 Jul 1899a.

= *Urocyon cinereoargenteus guatemalae* Miller, 1899. See Gold-
man (1938b:495).

Holotype: USNM 76723. Skin and skull. Adult male. Collected
16 Dec 1895 by E. W. Nelson and E. A. Goldman. Original
number 8801.

Type Locality: Nenton, [Huehuetenango], Guatemala.

***Urocyon littoralis santacruzae* Merriam**

Proc. Biol. Soc. Wash. 16: 75, 29 May 1903.

Holotype: USNM 34852/47117. Skin and skull. Adult female.
Collected [SL: 11 Jul 1892 by C. P. Streater. Original num-
ber 1914].

Type Locality: Santa Cruz Island, Channel Islands, [Santa Bar-
bara County], California.

***Urocyon parvidens* Miller**

Proc. Acad. Nat. Sci. Phila. 51: 276, 26 Jul 1899a.

= *Urocyon cinereoargenteus fraterculus* Elliot, 1896. See Gold-
man (1938b:495).

Holotype: USNM 11429/37762. Skin and skull. [Lyon and
Osgood (1909:212): Young adult] male. Collected on un-
known date by A. Schott. Original number 385. Skin cata-
loged [MC: between May and Dec] 1873; the skull on 4
May 1899.

Type Locality: Merida, Yucatan, [Mexico].

Remarks: *U. parvidens* Miller, 1899, was overlooked by Wozen-
kraft (2005:582).

***Vulpes (Urocyon) littoralis* Baird**

Mammals Rep. Explor. Surv. 8(1): 143, 1857.

= *Urocyon littoralis littoralis* (Baird, 1857). See Merriam (1888: 135).

Lectotype as designated by Lyon and Osgood (1909:212): USNM
1351/2154. Skin and skull. Adult, [sex unknown]. Collected
[SL: Jan 1856] by W. P. Trowbridge. No original number.

Type Locality: San Miguel Island, 30 mi (48 km) from Santa Bar-
bara, [Channel Islands, Santa Barbara County], California.

Genus *Vulpes* Frisch, 1777***Vulpes alascensis* Merriam**

Proc. Wash. Acad. Sci. 2: 668, 28 Dec 1900a.

= *Vulpes vulpes alascensis* Merriam, 1900. See Rausch (1953:107).

Holotype: USNM 21420. [Skull only]. Old male. Collected Feb
1880 by E. W. Nelson. Original number 180.

Type Locality: Andreafski (Old Andreafsky), [Miller and Rehn
(1901:205): near mouth of Yukon River], Alaska.

***Vulpes alascensis abietorum* Merriam**

Proc. Wash. Acad. Sci. 2: 669, 28 Dec 1900a.

= *Vulpes vulpes abietorum* Merriam, 1900. See Hall (1981:937).

Holotype: USNM 71197. [Skull only]. Adult male. Collected
winter of 1893–1894 by A. C. Murray. No original number.

Type Locality: Stuart Lake, British Columbia, [Canada].

***Vulpes beringensis* Merriam**

Proc. Biol. Soc. Wash. 15: 171, 6 Aug 1902b.

= *Vulpes lagopus beringensis* Merriam, 1902. See Wozenkraft
(2005:584).

Holotype: USNM 47109. [Skull only]. Young adult female. Collected
3 Jun 1892 by B. W. Evermann. Original number [SL: 19].

Type Locality: Bering Island (Ostrov Beringa), Bering Sea, [Kam-
chatskiy, Russia].

***Vulpes cascadenis* Merriam**

Proc. Wash. Acad. Sci. 2: 665, 28 Dec 1900a.

= *Vulpes vulpes cascadenis* Merriam, 1900. See Hall (1981:937).

Holotype: USNM 92767. [Skin and skull]. Young adult male. Collected 3 Mar 1898 by P. Schmid. No original number. [SL: 1318-X].

Type Locality: Trout Lake, [Miller and Rehn (1901:205): south] base of Mount Adams, near Columbia River, Cascade Range, [Klickitat County], Washington.

***Vulpes ballensis* Merriam**

Proc. Wash. Acad. Sci. 2: 15, 14 Mar 1900b.

= *Vulpes lagopus lagopus* (Linnaeus, 1758). See Wozencraft (2005:584).

Holotype: USNM 98067. [Skin and skull]. Old female. Collected 14 Jul 1899 by C. H. Merriam and W. B. Devereux. Original number [FC: A. K. Fisher] 2177.

Type Locality: Hall Island, Bering Sea, [SL: Alaska].

***Vulpes harrimani* Merriam**

Proc. Wash. Acad. Sci. 2: 14, 14 Mar 1900b.

= *Vulpes vulpes harrimani* Merriam, 1900. See Hall (1981:938).

Holotype: USNM 99626. Skin only. Adult, age not given. Purchased Jul 1899 by C. H. Merriam. No original number.

Type Locality: Kadiak (Kodiak) Island, Alaska.

***Vulpes kenaiensis* Merriam**

Proc. Wash. Acad. Sci. 2: 670, 28 Dec 1900a.

= *Vulpes vulpes kenaiensis* Merriam, 1900. See Hall (1981:938).

Holotype: USNM 96145. [Skull only]. Old male. Collected in 1898 by D. De Weese. No original number. [MC: 1884-X].

Type Locality: Kenai Peninsula, Alaska.

***Vulpes lagopus innuitus* Merriam**

Proc. Biol. Soc. Wash. 15: 170, 6 Aug 1902b.

= *Vulpes lagopus lagopus* (Linnaeus, 1758). See Wozencraft (2005:584).

Holotype: USNM 107626. [Skin and skull]. Adult female. Collected 27 Jun 1898 by E. A. McIlhenny. Original number 831. [SL: 2877-X].

Type Locality: Korogaro River, [Lyon and Osgood (1909:214): near] Point Barrow, Arctic Alaska.

***Vulpes lagopus ungava* Merriam**

Proc. Biol. Soc. Wash. 15: 170, 6 Aug 1902b.

= *Vulpes lagopus lagopus* (Linnaeus, 1758). See Wozencraft (2005:584).

Holotype: USNM 23195. [Skull only]. Adult male. Collected on unknown date by L. M. Turner. Original number 2362. [MC: Cataloged 15 Jan 1889].

Type Locality: Fort Chimo (Kuujuaq), Ungava [District], Labrador (Quebec), [Canada].

***Vulpes macrotis* Merriam**

Proc. Biol. Soc. Wash. 4: 136, 18 Feb 1888.

Holotype: USNM 186449. Skin and skull. Young adult male. Collected 1 Nov 1885 by F. Stephens. No original number. Merriam collection number 1792/2324.

Type Locality: Riverside, [Riverside County], California; [Poole and Schantz (1942:50): more exactly, on western margin of San Jacinto Plain in vicinity of Box Springs, within 10 mi (16 km) southeast of Riverside].

Remarks: Published as Merriam collection number 1792/2324; cataloged as USNM 186449 on 13 Oct 1911.

***Vulpes macrotis arizonensis* Goldman**

J. Wash. Acad. Sci. 21: 249, 4 Jun 1931.

= *Vulpes macrotis* Merriam, 1888. See Waithman and Roest (1977:162).

Holotype: USNM 202959. [Skin and skull]. Adult male. Collected 9 Dec 1913 by E. A. Goldman. Original number 22357.

Type Locality: 2 mi (3.2 km) south of Tule Tanks, near Mexican Boundary, Yuma County, Arizona.

***Vulpes macrotis devius* Nelson and Goldman**

Proc. Biol. Soc. Wash. 22: 25, 10 Mar 1909.

= *Vulpes macrotis* Merriam, 1888. See Waithman and Roest (1977:162).

Holotype: USNM 147078. [Skin and skull]. Adult male. Collected 13 Dec 1905 by E. W. Nelson and E. A. Goldman. Original number 18771.

Type Locality: Llano de Yrais, opposite Magdalena Island, Lower California (Baja California Sur), Mexico.

***Vulpes macrotis neomexicanus* Merriam**

Proc. Biol. Soc. Wash. 15: 74, 22 Mar 1902c.

= *Vulpes macrotis* Merriam, 1888. See Dragoo et al. (1990:328), who placed *neomexicanus* in *macrotis* under *V. velox*, and Mercure et al. (1993:1326), who considered *macrotis* a valid species.

Holotype: USNM 98646. [Skull only]. Adult male. Collected 4 Apr 1899 by C. [XC: M.] Barber. No original number. 2055-X.

Type Locality: [XC: Baird's ranch], San Andres Range, about 50 mi (80 km) north of El Paso, [Dona Ana County], New Mexico.

***Vulpes macrotis nevadensis* Goldman**

J. Wash. Acad. Sci. 21: 250, 4 Jun 1931.

= *Vulpes macrotis* Merriam, 1888. See Dragoo et al. (1990:328), who placed *nevadensis* in *macrotis* under *V. velox*, and Mercure et al. (1993:1326), who considered *macrotis* a valid species.

Holotype: USNM 213103. [Skin and skull]. Adult male. Collected 14 Dec 1915 by M. Gill. Original number [XC: 25]. X-Catalog number 13255-X.

Type Locality: Willow Creek Ranch, near Jungo, Humboldt County, Nevada.

***Vulpes macrotis tenuirostris* Nelson and Goldman**

J. Mammal. 12: 302, 24 Aug 1931a.

= *Vulpes macrotis* Merriam, 1888. See Waithman and Roest (1977:162).

Holotype: USNM 140394. Skin and skull. Adult male. Collected 1 Jul 1905 by [E. W.] Nelson and [E. A.] Goldman. Original number 17371.

Type Locality: Trinidad Valley, northwest base of San Pedro Martir Mountains, altitude 2,600 ft (792 m), Lower California (Baja California), Mexico.

***Vulpes macrourus* Baird**

In Stansbury, Explor. Surv. Valley Great Salt Lake, Utah, App. C., p. 309, Jun 1852.

= *Vulpes vulpes macroura* Baird, 1852. See Halloran (1962:432).

Holotype: USNM 4107. Skin only. [Lyon and Osgood (1909:214): Adult], sex not given. Purchased by the expedition from hunters in the Salt Lake Valley on unknown date, although the survey was conducted in 1849 and 1850. Original number [Baird (1857:131): A].

Type Locality: [Miller and Rehn (1901:204): Wasatch Mountains bordering Great Salt Lake, Utah].

Remarks: A holotype was not designated by number in the original publication. Baird (1857:131) stated that the description in Stansbury's report was based on specimen number A, currently USNM 4107.

***Vulpes muticus* Merriam**

Proc. Biol. Soc. Wash. 15: 74, 22 Mar 1902c.

= *Vulpes macrotis* Merriam, 1888. See Dragoo et al. (1990:328), who placed *muticus* in *macrotis* under *V. velox*, and Mercure et al. (1993:1326), who considered *macrotis* a valid species.

Holotype: USNM 75828. [Skin and skull]. Adult male. Collected 5 Nov 1895 by G. Leonard. Original number [SL: 6].

Type Locality: Tracy, San Joaquin Valley, [San Joaquin County], California.

***Vulpes necator* Merriam**

Proc. Wash. Acad. Sci. 2: 664, 28 Dec 1900a.

= *Vulpes vulpes necator* Merriam, 1900. See Hall (1981:939).

Holotype: USNM 30735/42635. Skin and skull. Young adult female. Collected 1 Sep 1891 by A. K. Fisher. Original number 940.

Type Locality: Whitney Meadows, altitude 9,500 ft (2,896 m), near Mount Whitney, [Tulare County], High Sierra, California.

***Vulpes pribilofensis* Merriam**

Proc. Biol. Soc. Wash. 15: 171, 6 Aug 1902b.

= *Vulpes lagopus pribilofensis* Merriam, 1902. See Wozencraft (2005:584).

Holotype: USNM 30651/42624. Skin and skull. Adult male. Collected [SL: 10] Aug 1891 by C. H. Merriam. Original number [SL: 8].

Type Locality: St. George Island, Pribilof Islands, Bering Sea, Alaska.

Remarks: Published as skull USNM 42624, to which skin USNM 30651 belongs.

***Vulpes regalis* Merriam**

Proc. Wash. Acad. Sci. 2: 672, 28 Dec 1900a.

= *Vulpes vulpes regalis* Merriam, 1900. See Jones and Henderson (1963:283).

Holotype: USNM 31697/43558. Skin and skull. Adult male.

Collected 5 Mar 1887 by V. Bailey. Original number 659.

Type Locality: Elk River, Sherburne County, Minnesota.

***Vulpes velox hebes* Merriam**

Proc. Biol. Soc. Wash. 15: 73, 22 Mar 1902a.

= *Vulpes velox* (Say, 1823). See Dragoo et al. (1990:328).

Holotype: USNM 108255. [Skin and skull]. Young adult male.

Collected 8 Oct 1900 by [Lyon and Osgood (1909:214):

W. G.] Mackay and [Lyon and Osgood (1909:214): G. E.]

Dippie. Original number 560. 2890-X.

Type Locality: Calgary, Alberta, Canada.

FAMILY URSIDAE FISCHER, 1817

Genus *Ursus* Linnaeus, 1758

***Selenarctos thibetanus wulsini* A. B. Howell**

Proc. Biol. Soc. Wash. 41: 115, 29 Jun 1928.

= *Ursus thibetanus ussuricus* (Huede, 1901). See Ellerman and Morrison-Scott (1951:239), who placed *wulsini* in *thibetanus*, Gromov and Baranova (1981:249), who placed *Selenarctos thibetanus* in *Ursus*, and Wozencraft (2005:590) for first use of the current name combination.

Holotype: USNM 240668. Skin, skull, [leg bones, and scapulae].

Adult female. Purchased [FC: 15 Oct 1923] by F. R. Wulsin.

Original number 1140.

Type Locality: The area of Eastern Tombs, [FC: 150 mi (241 km) east of Peking (Beijing)], Chihli (Hebei), China.

***Ursus absarokus* Merriam**

Proc. Biol. Soc. Wash. 27: 181, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 67391. [Skull only]. Adult male. Purchased

May 1893 by J. A. Loring. No original number.

Type Locality: Near head of Little Bighorn River, northern part of Bighorn Mountains, [Big Horn County], Montana.

***Ursus amblyceps* Baird**

Rep. U.S. Mexican Bound. Surv., vol. 2, pt. 2: 29 Jan 1859.

= *Ursus americanus amblyceps* Baird, 1859. See Bailey (1905:187).

Lectotype as designated by Poole and Schantz (1942:85): USNM 992. Skull only. Adult male. Collected on unknown date by

J. H. Clark. [MC: Cataloged 1 Nov 1852].

Type Locality: Old copper mines near the Rio Mimbres, near present location of Georgetown, Grant County, New Mexico.

Remarks: The original description gave the locality as Copper mines of the Gila.

***Ursus americanus eremicus* Merriam**

Proc. Biol. Soc. Wash. 17: 154, 6 Oct 1904b.

Holotype: USNM 116952. [Skin and skull]. Adult female. Collected 21 Apr 1902 by E. W. Nelson and E. A. Goldman. Original number 15111.

Type Locality: Sierra Guadalupe, [FC: altitude about 9,500 ft (2,860 m)], Coahuila, Mexico.

***Ursus apache* Merriam**

Proc. Biol. Soc. Wash. 29: 134, 6 Sep 1916a.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 212436. [Skull only]. Adult male. Collected 3 Apr 1913 by B. V. Lilly. No original number. [SL: 14110-X].

Type Locality: Whorton Creek, on south slope of White Mountains, a few miles west of Blue, [Greenlee County], eastern Arizona.

***Ursus arctos schwenkii* Shoemaker**

Stories Great Pa. Hunters, p. 25, 1913.

= *Ursus americanus americanus* Pallas, 1780. See Hall and Kelson (1959:867).

Holotype: Not known to exist. Represented in the collection by USNM 199494. Wax impressions and plaster casts of upper molars of holotype made by S. N. Rhoads. Age and sex unknown. Collected 30 Nov 1912 by E. A. Schwenk. No original number.

Type Locality: About a mile (1.6 km) south of White Deer Creek, Buffalo Path, Clinton County? (Union County), Pennsylvania.

Remarks: Even though Miller (1924:90), Miller and Kellogg (1955:692), Hall and Kelson (1959:867), and Hall (1981:948) all mentioned that there were trimmings of skin in the USNM, there is no mention of them in the museum catalog, and they are not present. The disposition of the holotype itself is unknown.

***Ursus arizonae* Merriam**

Proc. Biol. Soc. Wash. 29: 135, 6 Sep 1916a.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 177332. [Skull only]. Adult male. Collected 3 Sep 1911 by C. H. Shinn. No original number. [SL: 8516-X].

Type Locality: East side of Escudilla Mountains (Mountain), [SL: Apache National Forest], Apache County, Arizona.

***Ursus atnarko* Merriam**

N. Am. Fauna 41: 22, 9 Feb 1918.

= *Ursus arctos stikeenensis* Merriam, 1896. See Hall (1984:9).

Holotype: USNM 211452. [Skull only]. Adult male. Collected Sep 1915 by E. H. Edwards. No original number. [SL: 15048-X].

Type Locality: Lonesome Lake, about 30 mi (48 km) from the junction of the Whitewater of Talchawko, and the Atnarko, which two rivers unite to form the Bella Coola, nearly on the fifty-second parallel, and by the Atnarko River about 75 mi (121 km) from the head of Burke Channel, British Columbia, [Canada].

***Ursus bairdi* Merriam**

Proc. Biol. Soc. Wash. 27: 192, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 203805. [Skull only]. Old male. [XC: Purchased from E. R. Warren]. Date collected and collector unknown. [MC: Cataloged 10 Aug 1914]. Warren collection number 3147. [SL: 11238-X].

Type Locality: Blue River, Summit County, Colorado.

***Ursus californicus tularensis* Merriam**

Proc. Biol. Soc. Wash. 27: 188, 13 Aug 1914.

= *Ursus arctos californicus* Merriam, 1896. See Hall (1984:3).

Holotype: USNM 3536. [Skull only]. Old male. Collected on unknown date by J. Xantus. [MC: Original number 1172. Cataloged in 1859].

Type Locality: Fort Tejon, Canada de las Uvas (Grapevine Canyon), Tehachapi Mountains, [Kern County], California.

***Ursus (Euarctos) carlottae* Osgood**

N. Am. Fauna 21: 30, 26 Sep 1901.

= *Ursus americanus carlottae* Osgood, 1901. See Hall (1928:235).

Holotype: USNM 87620. Skull only. [Lyon and Osgood (1909:230): Adult male]. Collected Nov 1896 by J. H. Keen. No original number. [SL: 497-X].

Type Locality: Massett (Masset), Graham Island, Queen Charlotte Islands (Haida Gwaii Archipelago), British Columbia, [Canada].

***Ursus caurinus* Merriam**

Proc. Biol. Soc. Wash. 27: 187, 13 Aug 1914.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 176591. [Skin and skull]. Adult female. Collected 8 Jun 1911 by A. Hasselborg. Original number [SL: 1, 8451-X].

Type Locality: Berners Bay, east side of Lynn Canal, southeastern Alaska.

***Ursus chelan* Merriam**

Proc. Biol. Soc. Wash. 29: 136, 6 Sep 1916a.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 205185. [Skull only]. Old male. Collected 1 Sep 1913 by D. S. Rice. No original number. [SL: 11612-X].

Type Locality: Township 30 N, Range 16 E, Willamette Meridian, Wenatche National Forest, east slope Cascade Mountains, northern Chelan County, Washington.

***Ursus chelidoniae* Merriam**

N. Am. Fauna 41: 21, 9 Feb 1918.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 223133. [Skull only]. Old male. Collected in 1916 by F. and F. Johnstone. No original number. [SL: 16973-X].

Type Locality: On river at head of Jarvis Inlet, British Columbia, [Canada].

***Ursus colusus* Merriam**

Proc. Biol. Soc. Wash. 27: 187, 13 Aug 1914.

= *Ursus arctos californicus* Merriam, 1896. See Hall (1984:3).

Holotype: USNM 3837. [Skull only]. Old male. Collected on unknown date by the Wilkes U.S. Exploring Expedition [1838–1842]. Marked “C. P. Ex. Ex, 6.16,” the numerals uncertain, there being indication of a figure in front of the first 6. [MC: Cataloged between 8 and 11 Jun 1860].

Type Locality: Sacramento River, probably from between Colusa and Sacramento, California. The words “Grizzly Bear, Sacramento” are written in pencil on the right parietal.

***Ursus crassodon* Merriam**

N. Am. Fauna 41: 90, 9 Feb 1918.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 171049. [Skull only]. Old male. Collected Sep 1907 by E. P. Richardson. No original number. [SL: 8421-X].

Type Locality: Klappan Creek, Third South Fork, Stikine River. [FC: 150 mi (241 km) southeast Telegraph Creek, British Columbia], [Canada].

***Ursus crassus* Merriam**

N. Am. Fauna 41: 90, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 225473. [Skull only]. Adult male. Collected Sep 1916 by W. Drury. No original number. [SL: 19155-X].

Type Locality: Upper Macmillan River, Yukon, [Canada].

***Ursus cressonus* Merriam**

Proc. Biol. Soc. Wash. 29: 137, 6 Sep 1916a.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 206529. [Cranium only]. Old male. Collected in 1914 by J. P. Hubrick. No original number. [SL: 12210-X].

Type Locality: Lakina River, [SL: south of Copper River], south slope of Wrangell Range, Alaska.

***Ursus dalli* Merriam**

Proc. Biol. Soc. Wash. 10: 71, 13 Apr 1896a.

= *Ursus arctos dalli* Merriam, 1896. See Kurten (1973:5).

Holotype: USNM 75048. [Skull only]. Old male. Collected by chief of Yakutat Indians 8 Sep 1895. Procured through A. Johnson. Original number 2.

Type Locality: [Miller (1924:105): Northwest side] Yakutat Bay, Alaska.

***Ursus dalli gyas* Merriam**

Proc. Biol. Soc. Wash. 15: 78, 22 Mar 1902d.

= *Ursus arctos gyas* Merriam, 1902. See Rausch (1953:105).

Holotype: USNM 91669. [Skull only]. Adult male. Collected in 1897 by W. Pavlof. No original number. 1052-X.

Type Locality: Pavlof Bay, Alaska Peninsula, [Alaska].

***Ursus dusorgus* Merriam**

N. Am. Fauna 41: 33, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 217426. [Skull only]. Old male. Collected 4 Sep 1916. Collected and presented by W. Rindsfoos. No original number.

Type Locality: Head of Jack Pine River, near Mount Bess, close to British Columbia Boundary, Alberta, [Canada].

***Ursus eltonclarki* Merriam**

Proc. Biol. Soc. Wash. 27: 175, 13 Aug 1914.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 179066. [Skin and skull]. Adult male. Collected 19 May 1912 by E. Clark. Original number. [SL: 5, 9168-X].

Type Locality: Near Freshwater Bay, Chichagof Island, the more northern of the Sitka Islands, Alaska.

***Ursus eltonclarki insularis* Merriam**

Proc. Biol. Soc. Wash. 29: 141, 6 Sep 1916a.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 205186. [Skull only]. Old male. [SL: Received Jul] 1914. Purchased from W. H. Chase. No original number. [SL: 11625-X].

Type Locality: Admiralty Island, southeastern Alaska.

***Ursus eulophus* Merriam**

Proc. Biol. Soc. Wash. 17: 153, 6 Oct 1904b.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 81102. [Skull only]. Adult male. Collected in 1896 by G. T. Emmons. Original number [SL: 7].

Type Locality: Admiralty Island, southeastern Alaska.

***Ursus eximius* Merriam**

Proc. Biol. Soc. Wash. 29: 139, 6 Sep 1916a.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 122495. [Skin and skull]. Adult male. Collected by native. Received from W. G. Palmer in 1903. No original number. [MC: Cataloged 25 Sep 1903].

Type Locality: Head of Knik Arm, Cook Inlet, Alaska.

***Ursus floridanus* Merriam**

Proc. Biol. Soc. Wash. 10: 81, 13 Apr 1896a.

= *Ursus americanus floridanus* Merriam, 1896. See Hall and Kelson (1959:868).

Holotype: USNM 3484. Skull only. Old male. [MC: Collected 21 May 1858 by G. Wurdemann]. No original number.

Type Locality: Key Biscayne, [Miami-Dade County], Florida.

***Ursus henshawi* Merriam**

Proc. Biol. Soc. Wash. 27: 190, 13 Aug 1914.

= *Ursus arctos californicus* Merriam, 1896. See Hall (1984:3).

Holotype: USNM 15671. [Skull and atlas]. Old male. Collected [MC: Oct] 1875 by J. T. Rothrock and H. W. Henshaw. Original number [MC: 953].

Type Locality: Southern Sierra Nevada, near Havilah, Kern County, California.

***Ursus holzworthi* Merriam**

Proc. Biol. Soc. Wash. 42: 173, 15 Jun 1929.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 248691. [Skull only]. Adult male. Collected 23 Sep 1928 by J. M. Holzworth. No original number. [SL: 25140-X].

Type Locality: [SL: Head of Black River], Talkeetna Mountains, Alaska.

Remarks: According to Lawrence (1993:155), the skin is in the collection of the American Museum of Natural History as AMNH 100181.

***Ursus hoots* Merriam**

Proc. Biol. Soc. Wash. 29: 140, 6 Sep 1916a.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 206136. [Skull only]. Adult male. Collected in 1914, not 1913 as in original description, by J. Hyland; presented by L. Ellsworth. No original number. [SL: 11874-X].

Type Locality: Clearwater Creek, a north branch of Stikine River, [XC: Telegraph Creek], B[ritish] C[olumbia], [Canada].

***Ursus horriaeus texensis* Merriam**

Proc. Biol. Soc. Wash. 27: 191, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 103198. [Skull only]. Old male. Collected 2 Nov 1890 by C. O. Finley and J. Z. Means. No original number. [SL: 10894-X].

Type Locality: Davis Mountains, [Jeff Davis County], Texas.

Remarks: A letter that is with the skull dated 6 Jan 1949 from G. W. Evans, a nephew of J. Z. Means, who was on the hunting trip, to S. P. Young states that the skull was actually collected in Nov 1899.

***Ursus horribilis alascensis* Merriam**

Proc. Biol. Soc. Wash. 10: 74, 13 Apr 1896a.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Lectotype as designated by Merriam (1918:94): USNM 76466. [Skull only]. Old male. Collected in 1895 by R. Neumann. Original number [SL: 2].

Type Locality: [SL: Norton Sound], Unalaklik River, Alaska.

***Ursus horribilis californicus* Merriam**

Proc. Biol. Soc. Wash. 10: 76, 13 Apr 1896a.

= *Ursus arctos californicus* Merriam, 1896. See Storer and Tevis (1955:12).

Lectotype as designated by Lyon and Osgood (1909:230): USNM 3630. Skull only. Old adult, sex not given. Collected on unknown date by A. S. Taylor. No original number. Cataloged 7 Oct 1859.

Type Locality: Monterey, Monterey County, California.

***Ursus horribilis* var. *horriaeus* Baird**

Mammals Rep. Explor. Surv. 8(1): 224, 1857.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Lectotype as designated by Merriam (1896:75): USNM 990. Skull only. Adult male. Collected on unknown date by [SL: J. H. Clark]. No original number. [MC: Cataloged 1 Nov 1852].

Type Locality: Old copper mines near the Rio Mimbres, near the present location of Georgetown, Grant County, New Mexico.

***Ursus horribilis phaeonyx* Merriam**

Proc. Biol. Soc. Wash. 17: 154, 6 Oct 1904b.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 133231. [Skin and skull]. Old female. Collected 12 Jul 1903 by W. H. Osgood. Original number 2684.

Type Locality: 5 mi (8 km) below head of Comet Creek, a tributary of Forty Mile Creek, [FC: mountains] near Eagle, Alaska.

Remarks: The type locality was modified by Miller (1924:103) to read "Glacier Mountain, Tanana Mountains, Alaska, about 2 mi (3.2 km) below source of Comet Creek, near Forty-mile Creek, between Yukon and Tanana Rivers" and has been used by subsequent authors.

***Ursus idahoensis* Merriam**

N. Am. Fauna 41: 54, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 187888. [Skull only]. Old male. Collected 23 Sep 1874 by R. Leigh. No original number. Merriam collection number 93.

Type Locality: North Fork Teton River, [Fremont County], eastern Idaho.

Remarks: Published as Merriam collection number 93. Cataloged as USNM 187888 on 6 Feb 1912.

***Ursus imperator* Merriam**

Proc. Biol. Soc. Wash. 27: 180, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 176297. [Skin, skull, and skeleton]. Old male. [Accession card from the National Zoological Park: Received from G. S. Robinson 30 Jul 1894, died 9 May 1913. Original number NZP 2217].

Type Locality: Yellowstone National Park, Wyoming.

***Ursus innuitus* Merriam**

Proc. Biol. Soc. Wash. 27: 177, 13 Aug 1914.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 179780. [Skull only]. Old male. Collected in 1886 by E. F. Ball. No original number.

Type Locality: [SL: Near Nome], Golofnin Bay, south side of Seward Peninsula, northern Alaska.

***Ursus kenaiensis* Merriam**

Proc. Biol. Soc. Wash. 17: 154, 6 Oct 1904b.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).
 Holotype: USNM 128672. [Skull only]. Adult female. Collected in 1903 by C. A. Lambert. No original number. [SL: 4205-X].
 Type Locality: [SL: Near] Cape Elizabeth, extreme west end of Kenai Peninsula, Alaska.

***Ursus kennerleyi* Merriam**

Proc. Biol. Soc. Wash. 27: 194, 13 Aug 1914.
 = *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).
 Holotype: USNM 1047/2086. Skin and skull. Old male. Collected Jun 1855 by C. B. [R.] Kennerly. No original number.
 Type Locality: Mountains near Los Nogales, Sonora, [Mexico].
 Remarks: The skin has been missing since at least Poole and Schantz (1942:92).

***Ursus kidderi* Merriam**

Proc. Biol. Soc. Wash. 15: 78, 22 Mar 1902d.
 = *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).
 Holotype: USNM 116562. Skin and skull. Young adult male. Collected Jun 1901 by J. H. Kidder. No original number. [SL: 3661-X].
 Type Locality: Chinitna Bay, [XC: near mouth of] Cook Inlet, [Alaska Peninsula], Alaska.

***Ursus kidderi tundrensis* Merriam**

Proc. Biol. Soc. Wash. 27: 196, 13 Aug 1914.
 = *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).
 Holotype: USNM 76470. [Skull only]. Adult male. Collected Sep 1894 by natives and secured through R. Neumanns. Original number [SL: 6].
 Type Locality: Shaktolik River, Norton Sound, Alaska.

***Ursus klamathensis* Merriam**

Proc. Biol. Soc. Wash. 27: 185, 13 Aug 1914.
 = *Ursus arctos californicus* Merriam, 1896. See Hall (1984:3).
 Holotype: USNM 178735. [Skull only]. Adult male. Collected on unknown date by C. F. Edson. No original number. [MC: Cataloged 13 May 1912].
 Type Locality: [SL: East end Siskiyou Mountains near] Beswick, near mouth of Shovel Creek, Klamath River, [Siskiyou County], northeastern California.

***Ursus kluane* Merriam**

Proc. Biol. Soc. Wash. 29: 141, 6 Sep 1916a.
 = *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).
 Holotype: USNM 204188. [Skull only]. Old male. Collected 15 Jul 1914 [XC: 5 Jul 1914] by [T.] Smith and [G.] Geddis. No original number. [SL: 11251-X].
 Type Locality: McConnell River, Yukon Territory, [Canada].

***Ursus kluane impiger* Merriam**

N. Am. Fauna 41: 81, 9 Feb 1918.
 = *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 210708. [Skull only]. Not quite fully adult male. Collected Apr 1914 by [W. G.] Mackay and [G. E.] Dippie. No original number. [SL: 13986-X].
 Type Locality: Columbia Valley, British Columbia, [Canada].

***Ursus kwakiutl* Merriam**

Proc. Biol. Soc. Wash. 29: 143, 6 Sep 1916a.
 = *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).
 Holotype: USNM 211748. [Skull and skin of head]. Adult male. Collected 17 May 1916 by F. Mansell. No original number. [SL: 14093-X].
 Type Locality: Jarvis Inlet, coast of southern British Columbia, [Canada].

***Ursus kwakiutl neglectus* Merriam**

Proc. Biol. Soc. Wash. 29: 144, 6 Sep 1916a.
 = *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).
 Holotype: USNM 209889. [Skull only]. Old male. Collected Apr 1914 by W. H. Spaulding. No original number. [SL: 12718-X].
 Type Locality: Near Hawk Inlet, Admiralty Island, southeastern Alaska.

***Ursus kwakiutl warburtoni* Merriam**

Proc. Biol. Soc. Wash. 29: 145, 6 Sep 1916a.
 = *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).
 Holotype: USNM 210576. [Skull only]. Old male. Collected 15 Jul 1915 by E. H. Edwards. No original number. [SL: 13101-X].
 Type Locality: Atnarko River, B[ritish] C[olumbia], Canada].

***Ursus macfarlani* Merriam**

N. Am. Fauna 41: 51, 9 Feb 1918.
 = *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).
 Holotype: USNM 6551. [Skull, two humeri, and one ulna]. Adult male. Collected 8 May 1863 by R. MacFarlane. Original number 551.
 Type Locality: On Anderson River, 50 mi (80 km) below Fort Anderson, Mackenzie, [Northwest Territories, Canada].
 Remarks: This specimen originally consisted of a skin, USNM 8123, and skeleton. Poole and Schantz (1942:94) reported that only the material listed above could be found, and that is still the case today.

***Ursus macrodon* Merriam**

N. Am. Fauna 41: 38, 9 Feb 1918.
 = *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).
 Holotype: USNM 12678/15707. Skin and skull. Old male. Collected 28 Jul 1876 by C. W. Derry. No original number.
 Type Locality: Twin Lakes, [Lake County], Colorado.
 Remarks: According to the museum catalog, there should be leg bones, but they cannot be found.

***Ursus magister* Merriam**

Proc. Biol. Soc. Wash. 27: 189, 13 Aug 1914.

= *Ursus arctos californicus* Merriam, 1896. See Hall (1984:3).
Holotype: USNM 160155. [Skull and one claw]. Old male. Collected Aug 1900 or 1901 by H. A. Stewart. Original number [SL: S. E. Piper 241].

Type Locality: [FC: San Juan Capistrano], Los Biacitos, head of San Onofre Canyon, Santa Ana Mountains, [Orange/Riverside County], southern California.

***Ursus mendocinensis* Merriam**

Proc. Biol. Soc. Wash. 29: 145, 6 Sep 1916a.

= *Ursus arctos californicus* Merriam, 1896. See Hall (1984:3).
Holotype: USNM 206625. [Cranium only]. Old male. Collected on unknown date by [Letter with specimen from R. T. Orr to R. Kellogg dated 26 May 1941: J Farley]. Obtained through C. J. and F. H. Hittell. [SL: Received 23 Apr 1915]. No original number. [SL: 12229-X].

Type Locality: [Letter mentioned above: Bloody Rock], [Hall and Kelson (1959:573): north of Sherwood], near Long Valley, Mendocino County, California.

***Ursus middendorffi* Merriam**

Proc. Biol. Soc. Wash. 10: 69, 13 Apr 1896a.

= *Ursus arctos middendorffi* Merriam, 1896. See Rausch (1953:106).

Holotype: USNM 54793. [Skull only]. Adult male. Collected 3 Jul 1893 by B. J. Bretherton. Original number 176.

Type Locality: Kodiak Island, Alaska.

***Ursus mirabilis* Merriam**

Proc. Biol. Soc. Wash. 29: 146, 6 Sep 1916a.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 137471. [Skin and skull]. Adult male. Collected 26 Jun 1905 by C. Catt. Original number [XC: 4]. [SL: 5468-X].

Type Locality: [SL: Green's Bay], Admiralty Island, Alaska.

***Ursus mirus* Merriam**

N. Am. Fauna 41: 40, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 206595. [Skull only]. Adult male, rather old. Collected 27 Mar 1915 by H. Anderson. No original number. [SL: 12227-X].

Type Locality: Slough Creek, Yellowstone National Park, [Park County], Wyoming.

***Ursus navaho* Merriam**

Proc. Biol. Soc. Wash. 27: 191, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 3571/3500. Skin and skull. Old male. Collected probably in 1856 by [MC: H. B. Mollhausen. Cataloged in 1859]. No original number.

Type Locality: Near Fort Defiance (Mollhausen), Chuska Mountains, [Apache County], northeastern Arizona.

Remarks: Even though Merriam gave the skin number in the original description, he did not describe it. Poole and

Schantz (1942:95) mentioned that it was apparently lost, and it cannot be found today.

***Ursus nelsoni* Merriam**

Proc. Biol. Soc. Wash. 27: 190, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 99657. [Skin and skull]. Adult female. Collected 13 Nov 1899 by H. A. Cluff. Original number [XC: 7]. [SL: 2406-X].

Type Locality: Colonia Garcia, Chihuahua, Mexico.

***Ursus nortoni* Merriam**

Proc. Biol. Soc. Wash. 27: 179, 13 Aug 1914.

= *Ursus arctos dalli* Merriam, 1896. See Hall (1984:4).

Holotype: USNM 178763. [Skull only]. Adult female. Collected [SL: 15] May 1910 by G. F. Norton. Original number A5.

Type Locality: Yakutat, Alaska.

Remarks: The holotype is the mother of male cub USNM 178764.

***Ursus nuchek* Merriam**

Proc. Biol. Soc. Wash. 29: 146, 6 Sep 1916a.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 146459. [Skull only]. Old male. Collected 15 Sep 1905 by C. Swanson. Original number [SL: "0." 5791-X].

Type Locality: Head of Nuchek Bay, Hinchinbrook Island, Prince William Sound, Alaska.

***Ursus ophrus* Merriam**

Proc. Biol. Soc. Wash. 29: 148, 6 Sep 1916a.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 210252. [Skull only]. Old male. Collected in 1915 by E. W. Darbey. No original number. [SL: Received 4 Oct 1915. 12837-X].

Type Locality: Eastern British Columbia, [Canada], exact locality unknown.

***Ursus orgiloides* Merriam**

N. Am. Fauna 41: 46, 9 Feb 1918.

= *Ursus arctos dalli* Merriam, 1896. See Hall (1984:4).

Holotype: USNM 223275. [Skull only]. Probably male, age not given. [Both the skull label and skull are marked male]. Collected Nov 1916 by unknown collector. Purchased from E. M. Axelson. No original number. [SL: 17075-X].

Type Locality: Italio River, [XC: south of Yukutat Bay], Alaska.

***Ursus orgilos* Merriam**

Proc. Biol. Soc. Wash. 27: 176, 13 Aug 1914.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 180280. Skull only. [Poole and Schantz (1942:96): Probably male], rather old. Collected 22 Aug 1912 by A. Hasselborg. Original number [XC: 4]. [SL: 9805-X].

Type Locality: Bartlett Bay, east side Glacier Bay, southeastern Alaska.

***Ursus oribasus* Merriam**

N. Am. Fauna 41: 56, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 223991. [Skin and skull]. Adult male, rather old. Collected spring 1916 by J. Thompson. Purchased from W. Drury. No original number. 18284-X.

Type Locality: Upper [SL: head of] Liard River, Yukon, [Canada], near British Columbia Boundary.

***Ursus pallasi* Merriam**

Proc. Biol. Soc. Wash. 29: 149, 6 Sep 1916a.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 205160. [Skull only]. Old male. Collected Aug 1913 by T. A. Dixon. No original number. [SL: 11389-X].

Type Locality: Donjek River, southwestern Yukon Territory, [Canada].

***Ursus pellyensis* Merriam**

N. Am. Fauna 41: 82, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 215477. [Skull only]. Young adult male. Collected 30 Sep 1915 by F. E. Enevoldsen. No original number. [SL: 14704-X].

Type Locality: Ketzta Divide, [SL: Pelly River], Pelly Mountains, Yukon, [Canada].

***Ursus perturbans* Merriam**

N. Am. Fauna 41: 64, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 222102. [Skin and skull]. Old male. Collected 9 Jul 1916 by E. Anderson. Original number [XC: 18]. [SL: 16694-X].

Type Locality: Near Mount Taylor, [Hall and Kelson (1959:874): canyon 12 mi (19 km) E San Mateo], [SL: Mount Taylor Division, Manzano National Forest], [Valencia County], northern New Mexico.

***Ursus pervagor* Merriam**

Proc. Biol. Soc. Wash. 27: 186, 13 Aug 1914.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 187887. [Skull only]. Adult male. Collected May 1893, not 1883 as in original description, by J. Fannin. No original number. Merriam collection number 6510.

Type Locality: Pemberton (Lillooet) Lake, in edge of humid coast strip, British Columbia, [Canada].

***Ursus phaeonyx latifrons* Merriam**

Proc. Biol. Soc. Wash. 27: 183, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 75612. [Skull only]. Old male. Collected 15 Sep 1895 by J. A. Loring. Original number 3270.

Type Locality: Jasper House, Alberta, [SL: Canada].

***Ursus planiceps* Merriam**

N. Am. Fauna 41: 37, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 13289. [Skull and partial skeleton]. Adult male, rather old. Collected on unknown date by F. V. Hayden. [MC: Cataloged Dec 1873]. No original number.

Type Locality: Colorado, exact locality unknown, but probably in the foothills or on the western edge of the plains.

***Ursus pulchellus ereunetes* Merriam**

N. Am. Fauna 41: 56, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 222323. [Skull only]. Adult male. Collected 1 Oct 1916 by G. Hill. No original number. [SL: 16712-X].

Type Locality: Beaverfoot Range, Kootenay District, British Columbia, [Canada].

***Ursus pulchellus pulchellus* Merriam**

N. Am. Fauna 41: 55, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 221599. [Skull only]. Adult male. Collected 20 Jul 1916 by F. E. Enevoldsen. No original number. [SL: 14968-X].

Type Locality: Ross River, Yukon Territory, Canada.

***Ursus rogersi bisonophagus* Merriam**

N. Am. Fauna 41: 66, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 181089. [Skin and skull]. Young adult male. Collected Feb 1887 by P. Kleineidam. No original number. [SL: 10066-X].

Type Locality: Bear Lodge, Sundance National Forest, Black Hills, [XC: Crook County], northeastern Wyoming.

***Ursus rogersi rogersi* Merriam**

N. Am. Fauna 41: 65, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 222983. [Skull only]. Adult male. Collected fall 1890 by A. Rogers. Original number [XC: 4]. [SL: 16923-X].

Type Locality: High up on Greybull River, Absaroka Mountains, [Park County], Wyoming.

***Ursus rungiusi rungiusi* Merriam**

N. Am. Fauna 41: 49, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 179893. [Skull only]. Young adult male. Collected Sep 1910 by C. Rungius. No original number.

Type Locality: Rocky Mountains on headwaters of Athabaska River, Alberta, [Canada].

***Ursus rungiusi sagittalis* Merriam**

N. Am. Fauna 41: 50, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 210705. [Skull only]. Adult male, rather old. Collected fall 1915, collector unknown. Purchased from [W. G.] Mackay and [G. F.] Dippie. No original number. [SL: 13983-X].

Type Locality: Champagne Landing, southwestern Yukon, [Canada].

***Ursus selkirki* Merriam**

Proc. Biol. Soc. Wash. 29: 150, 6 Sep 1916a.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 205170. [Skull only]. Old male. Collected 4 Jun 1914 by J. Hurst. No original number. [SL: 11545-X].

Type Locality: Upper Columbia River, Selkirk Mountains, B[ritish] C[olumbia, Canada].

***Ursus sheldoni* Merriam**

Proc. Biol. Soc. Wash. 23: 127, 2 Sep 1910.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 137318. [Skull only]. Adult male. Collected May 1904, not 1905 as in original description, by [FC: M. May and presented by C. Sheldon]. Original number [FC: C. Sheldon] 17. [SL: 5460-X].

Type Locality: [SL: East side] Montague Island, [FC: Prince William Sound], Alaska.

Remarks: It is impossible to discern from the field catalog whether this specimen was collected by Mark May in 1904 or Mark in May 1904.

***Ursus shirasi* Merriam**

Proc. Biol. Soc. Wash. 27: 195, 13 Aug 1914.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 203030. [Mounted head, right and left forelegs, about two square feet of skin from back, and skull]. Old male. Collected 16 Sep 1913 by G. Shiras, 4th. No original number. [SL: 10692-X].

Type Locality: Pybus Bay, Admiralty Island, [Alaska].

***Ursus shoshone* Merriam**

Proc. Biol. Soc. Wash. 27: 184, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 203185. [Skull only]. Old male. Purchased. [Date of collection and collector unknown]. [SL: Received from M. Miles Apr 1914. Original number 1].

Type Locality: Estes Park, [Larimer County], Rocky Mountains of northern Colorado.

***Ursus shoshone canadensis* Merriam**

Proc. Biol. Soc. Wash. 27: 184, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 174511. [Skin and skull]. Adult male. Collected 23 Jul 1911 by N. Hollister and C. D. Walcott Jr. Original number Hollister 3792.

Type Locality: Moose Pass, near Mount Robson, British Columbia, [Canada].

Remarks: The field catalog indicates that this specimen was actually collected by C. D. Walcott Jr.

***Ursus sitkensis* Merriam**

Proc. Biol. Soc. Wash. 10: 73, 13 Apr 1896a.

= *Ursus arctos sitkensis* Merriam, 1896. See Hall (1984:8).

Holotype: USNM 187891. Skull only. Adult male. Collected in 1894 by an Indian. Purchased and presented by J. S. Brown. Merriam collection number 6543.

Type Locality: Coast near Sitka, Alaska.

Remarks: Published as Merriam collection number 6543. Cataloged as USNM 187891 on 18 Feb 1912.

***Ursus stikeenensis* Merriam**

Proc. Biol. Soc. Wash. 27: 178, 13 Aug 1914.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 202794. [Skin and skull]. Adult male. Collected 23 Sep 1913 by C. R. Cross Jr. and E. A. Preble. Original number [FC: EAP 5772].

Type Locality: [SL: head of] Tatletuey Lake, [SL: 12 mi (19 km) W Thudade Lake], near head of Skeena River, northern British Columbia, [Canada].

Remarks: The field catalog notes that this specimen was collected by C. R. Cross Jr.

***Ursus tabltanicus* Merriam**

Proc. Biol. Soc. Wash. 27: 181, 13 Aug 1914.

= *Ursus arctos stikeenensis* Merriam, 1914. See Hall (1984:9).

Holotype: USNM 179928. [Skull only]. Old male. Collected [SL: Sep 1906] and presented by G. F. Norton. No original number. [SL: 9258-X].

Type Locality: Klappan Creek, third south fork of Stikine River, [SL: near Klappan Mountain], British Columbia, [Canada].

***Ursus toklat* Merriam**

Proc. Biol. Soc. Wash. 27: 182, 13 Aug 1914.

= *Ursus arctos alascensis* Merriam, 1896. See Hall (1984:2).

Holotype: USNM 158813. [Skull only]. Adult female. Collected 24 [FC: 28] May 1908 by C. Sheldon and presented to the Biological Survey by him. Original number 324.

Type Locality: Head of Toklat River, north base of Alaska Range near Mount McKinley, [Alaska].

Remarks: Mother of cub USNM 158814.

***Ursus townsendi* Merriam**

Proc. Biol. Soc. Wash. 29: 151, 6 Sep 1916a.

= *Ursus arctos dalli* Merriam, 1896. See Hall (1984:4).

Holotype: USNM 216643. [Skull only]. Old male. No collector or date of collection given. Purchased by C. H. Townsend in 1889. No original number.

Type Locality: Mainland of southeastern Alaska, exact locality uncertain, but probably between Cross Sound and Alsek River delta.

***Ursus utahensis* Merriam**

Proc. Biol. Soc. Wash. 27: 193, 13 Aug 1914.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:5).

Holotype: USNM 180193. [Skull only]. Old male. Collected 22 May 1911 by M. Martenson. No original number. [SL: 9314-X].

Type Locality: North Fork Salina Creek, [SL: 1 mi (1.6 km) S of the Nipple], 10 mi (16 km) or 12 mi (19 km) southeast of Mayfield, [Sanpete County], Utah.

***Ursus washake* Merriam**

Proc. Biol. Soc. Wash. 29: 152, 6 Sep 1916a.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 213005. [Skull only]. Adult male, rather old. Collected Sep 1913 by J. A. McGuire. No original number. [SL: 14166-X].

Type Locality: North Fork Shoshone River, Absaroka Mountains, between Bighorn Basin and Yellowstone National Park, [Park County], western Wyoming.

***Vetularctos inopinatus* Merriam**

N. Am. Fauna 41: 132, 9 Feb 1918.

= *Ursus arctos horribilis* Ord, 1815. See Hall (1984:6).

Holotype: USNM 8706/7149. Skin, skull, [and skeleton]. Nearly adult female. Collected 24 Jun 1864 by R. MacFarlane. Original number 1979.

Type Locality: Rendezvous Lake, northeast of Fort Anderson, Mackenzie, [Northwest Territories, Canada].

FAMILY OTARIIDAE GRAY, 1825

Genus *Arctocephalus* E. Geoffroy and F. Cuvier, 1826

***Arctocephalus townsendi* Merriam**

Proc. Biol. Soc. Wash. 11: 178, 1 Jul 1897c.

Holotype: USNM 83617. [Cranium only]. Adult male. Collected 22 May 1892 by C. H. Townsend. No original number.

Type Locality: On the beach on the west side of Guadalupe Island, off Lower California (Baja California), [Mexico].

FAMILY PHOCIDAE GRAY, 1821

Genus *Mirounga* Gray, 1827

***Macrorhinus angustirostris* Gill**

Proc. Essex Inst. 5: 13, 1866a. Communicated 16 Oct 1865; separates issued 7 Apr 1866 as Proc. Chic. Acad. Sci. 1: 33, Apr 1866b.

= *Mirounga angustirostris* (Gill, 1866). See Elliot (1904a:545).

Lectotype as designated by J. A. Allen (1880:748): USNM 4704. Skull only. [Lyon and Osgood (1909:205): Immature] female. Collected in [SL: 1857 by W. O. Ayres]. No original number.

Type Locality: St. Bartholomews Bay (Puerto San Bartolome), Lower California (Baja California Sur), [Mexico].

Remarks: A holotype was not designated in the original description. This specimen is the only one in the collection with the locality given by Gill and was designated by Allen as the type = lectotype (ICZN, 1999: Article 74.5) in a footnote to the table on page 748.

Genus *Phoca* Linnaeus, 1758

***Halichoerus antarcticus* Peale**

U.S. Explor. Exped. 8: 30, pl. 31, 1848.

= *Phoca vitulina richardii* (Gray, 1864). See Scheffer (1958:92).

Holotype: USNM 3741/3648. Skin and skull. [Lyon and Osgood (1909:204): Young] adult. Sex not given. Collected 10 Mar, year not given, by the U.S. Exploring Expedition. [MC: Cataloged 10 Jan 1860]. Original number [MC: 29].

Type Locality: Deception Island, [South Shetland Islands], Antarctic Sea. Amended by Gill (1866:4, footnote) to California and Oregon coasts.

Remarks: Although the name *antarcticus* Peale predates that of *richardii* Gray, we consider it a *nomen oblitum* under ICZN (1999: Article 23). The skin was described in the original description, but it has been missing at least since Lyon and Osgood (1909:204). A holotype was not designated by number in the original description, but Peale mentioned only a single specimen and reference to J. A. Allen (1880:580) leaves no doubt that USNM 3741/3648 is the specimen upon which the description was based and is therefore the holotype by monotypy (ICZN, 1999: Article 73.1.2).

***Phoca ochotensis macrodens* J. A. Allen**

Bull. Am. Mus. Nat. Hist. 16: 483, 12 Dec 1902a.

= *Phoca largha* Pallas, 1811. See Wozencraft (2005:332).

Holotype: USNM 83447. [Skull and atlas]. Young adult male. Collected in 1896 by L. Stejneger. No original number.

Type Locality: Avatcha Bay, Kamchatka (Kamchatskiy), [Russia].

***Phoca richardii geronimensis* J. A. Allen**

Bull. Am. Mus. Nat. Hist. 16: 495, 12 Dec 1902a.

= *Phoca vitulina richardii* (Gray, 1864). See Scheffer (1958:92).

Holotype: USNM 81520. [Skin and skull]. Adult male. Collected 13 Sep 1896 by A. W. Anthony. Original number [SL: 209].

Type Locality: San Geronimo Island (Isla San Jeronimo), Lower California (Baja California), [MC: Mexico].

***Phoca richardii pribilofensis* J. A. Allen**

Bull. Am. Mus. Nat. Hist. 16: 495, 12 Dec 1902a.

= *Phoca vitulina richardii* (Gray, 1864). See Doult (1942:117).

Holotype: USNM 83223/49550. [Skin, skull, and skeleton]. Adult female. Collected on unknown date by C. H. Townsend. No original number. [MC: Skin cataloged 28 Nov 1896; the skull and skeleton 5 Jan 1900].

Type Locality: [MC: St. Paul Island], Pribilof Islands, Alaska.

Remarks: Published as USNM 49550. J. A. Allen (1902a:495) described an adult female skin from St. Paul Island collected by Townsend, number USNM 83223, but apparently did not realize that it belonged to the type skull and skeleton.

***Phoca stejnegeri* J. A. Allen**

Bull. Am. Mus. Nat. Hist. 16: 485, 12 Dec 1902a.

= *Phoca vitulina stejnegeri* J. A. Allen, 1902. See Shaughnessy and Fay (1977:404).

Holotype: USNM 21310. Skull only. Adult male. Collected 16 Apr 1883 by L. Stejneger. Original number [SL: 1973].
Type Locality: Bering Island (Ostrov Beringa), [Kamchatskiy, Russia].

FAMILY MUSTELIDAE FISCHER, 1817

Genus *Aonyx* Lesson, 1827

Aonyx capensis helios Heller
Smithson. Misc. Collect. 61(19): 1, 8 Nov 1913a.
= *Aonyx capensis bindei* (Thomas, 1905). See Coetzee (1977:9).
Holotype: USNM 175750. [Skin and skull]. Adult female. Collected Oct 1912 by H. J. A. Turner. Original number 1181.
Type Locality: 40 mi (64 km) southwest of Kericho Station, Sotik District (Nyanza), British East Africa (Kenya).

Genus *Enhydra* Fleming, 1822

Enhydra lutris kenyoni Wilson, in Wilson et al.
J. Mammal. 72: 33, 13 Feb 1991.
Holotype: USNM 527045. Skin and skull. Adult female. Collected between Jan and May 1959 by K. W. Kenyon. Original KWK 59-17.
Type Locality: Amchitka Island, Alaska.

Latax lutris nereis Merriam
Proc. Biol. Soc. Wash. 17: 159, 6 Oct 1904c.
= *Enhydra lutris nereis* (Merriam, 1904). See Grinnell (1923:316).
Holotype: USNM 133508. [Skull and skeleton]. Adult male. Collected 2 Jul 1904 by G. M. McGuire. No original number. [SL: 4690-X].
Type Locality: San Miguel Island, Santa Barbara Islands, [Santa Barbara County], California.

Genus *Galictis* Bell, 1826

Galictis canaster Nelson
Proc. Biol. Soc. Wash. 14: 129, 9 Aug 1901.
= *Galictis vittata canaster* Nelson, 1901. See Cabrera (1958:259).
Holotype: USNM 159562. [Skin and skull]. [Poole and Schantz (1942:63): Adult] [SL: male]. Collected in winter 1901 by the Indians. No original number. [SL: 7622-X].
Type Locality: Near Tunkas, northern Yucatan, [Mexico].
Remarks: [XC: This specimen was captured alive and sent to General F. Canton, Governor of Yucatan, who later presented the specimen to the U.S. Biological Survey]. The type was described from the living specimen while it was in the possession of General Canton.

Genus *Gulo* Pallas, 1780

Gulo luscus vancouverensis Goldman
Proc. Biol. Soc. Wash. 48: 177, 15 Nov 1935.
= *Gulo gulo vancouverensis* Goldman, 1935. See Wozencraft (2005:607).

Holotype: USNM 211499. Skull only. Old adult male. Collected 27 Mar 1913 by W. R. Kent. X- Catalog number 14081[-X].
Type Locality: Great Central Lake, Vancouver Island, British Columbia, [Canada].

Genus *Ictonyx* Kaup, 1835

Ictonyx capensis albescens Heller
Smithson. Misc. Collect. 61(13): 13, 16 Sep 1913b.
= *Ictonyx striatus albescens* Heller, 1913. See Hollister (1918: 114).
Holotype: USNM 182724. [Skin and skull]. Adult male. Collected 15 Sep 1911 by E. Heller. Original number 4318.
Type Locality: Summit of Mount Lololokwi, northern Guaso Nyiro (Ewaso Ngiro) district, British East Africa (Kenya).

Genus *Lontra* Gray, 1843

Lutra canadensis evexa Goldman
Proc. Biol. Soc. Wash. 48: 182, 15 Nov 1935.
= *Lontra canadensis pacifica* (J. A. Allen, 1898). See Van Zyll de Jong (1972:85).
Holotype: USNM 47018. Skull only. Adult male. Collected in 1892 by W. E. Traill. No original number.
Type Locality: Stuart Lake, near headwaters of Fraser River, British Columbia, [Canada].

Lutra canadensis exera Goldman
Proc. Biol. Soc. Wash. 48: 181, 15 Nov 1935.
= *Lontra canadensis pacifica* (J. A. Allen, 1898). See Van Zyll de Jong (1972:85).
Holotype: USNM 12485. Skull and parts of skeleton. Adult, probably male. Collected in 1872 by W. H. Dall. Original number [MC: 641].
Type Locality: Nagai Island, Shumagin Islands, [MC: Poppoff Strait], Alaska.

Lutra canadensis kodiacensis Goldman
Proc. Biol. Soc. Wash. 48: 180, 15 Nov 1935.
= *Lontra canadensis kodiacensis* (Goldman, 1935). See Van Zyll de Jong (1972:86).
Holotype: USNM 98142. Skull only. Adult, probably female. Collected by C. H. Merriam. Found and presented to Merriam by G. B. Grinnell in Jul 1899. No original number.
Type Locality: Uyak Bay, Kodiak Island, Alaska.

Lutra canadensis nexa Goldman
Proc. Biol. Soc. Wash. 48: 182, 15 Nov 1935.
= *Lontra canadensis pacifica* (J. A. Allen, 1898). See Van Zyll de Jong (1972:85).
Holotype: USNM 210572. Skin and skull. Adult male. Collected 19 Dec 1915 by R. F. Dietz. Original number [XC: 1]. X-Catalogue number 13275[-X].
Type Locality: Near Deeth, Humboldt River, Elko County, Nevada.

***Lutra canadensis optiva* Goldman**

Proc. Biol. Soc. Wash. 48: 179, 15 Nov 1935.

= *Lontra canadensis pacifica* (J. A. Allen, 1898). See Van Zyll de Jong (1972:85).

Holotype: USNM 137320. Skin and skull. Adult male. Collected [FC: 5 May] 1905 by C. Sheldon. Original number [XC: 3]. X-Catalogue number 5462[-X].

Type Locality: Zaikoff Bay, Montague Island, [FC: Prince William Sound], Alaska.

***Lutra canadensis preblei* Goldman**

Proc. Biol. Soc. Wash. 48: 178, 15 Nov 1935.

= *Lontra canadensis pacifica* (J. A. Allen, 1898). See Van Zyll de Jong (1972:85).

Holotype: USNM 147413. Skull only. Adult male. Collected Aug 1903 by E. A. Preble. Original number 4894.

Type Locality: Near McTavish Bay, Great Bear Lake, on canoe route from Lake Hardisty, [SL: south of McTavish Bay], [FC: and between Lake Hardisty and McTavish Bay], Mackenzie, [Northwest Territories, Canada].

***Lutra canadensis texensis* Goldman**

Proc. Biol. Soc. Wash. 48: 184, 15 Nov 1935.

= *Lontra canadensis lataxina* (Cuvier, 1823). See Van Zyll de Jong (1972:85).

Holotype: USNM 156849. Skull only. Adult male. Collected Mar 1908 by B. V. Lilly. No original number. X-Catalogue number 7047[-X].

Type Locality: 20 mi (32 km) west of Angleton, Brazoria County, Texas.

***Lutra canadensis yukonensis* Goldman**

Proc. Biol. Soc. Wash. 48: 180, 15 Nov 1935.

= *Lontra canadensis pacifica* (J. A. Allen, 1898). See Van Zyll de Jong (1972:85).

Holotype: USNM 21480. Skull only. Adult female. Collected fall 1879 by E. W. Nelson. Original number 112.

Type Locality: Unalakleet, Norton Sound, Alaska.

***Lutra destructor* Barnston**

Can. Nat. Geol. 8: 152, Apr 1863.

= *Lontra canadensis canadensis* (Schreber, 1777). See Larivière and Walton (1998:1).

Lectotype as designated by Goldman (1935:176): USNM 5128/4445. Skin, skull, and skeleton. Rather young female. Collected on unknown date by G. Barnston. No original number. [MC: Cataloged 17 Oct 1861].

Type Locality: Region of North-eastern America. Fixed by Goldman (1935:176) in the lectotype designation as Michipicoten, Lake Superior, Ontario, Canada.

Remarks: The skin was missing at the time of the lectotype designation and still cannot be found.

***Lutra iowa* Goldman**

Field Mus. Nat. Hist., Zool. Ser. 27: 229, 8 Dec 1941b.

Holotype: USNM 266580. This specimen was transferred to the NMNH Paleobiology Department on 17 Oct 2014.

***Lutra mira* Goldman**

Proc. Biol. Soc. Wash. 48: 185, 15 Nov 1935.

= *Lontra canadensis mira* (Goldman, 1935). See Van Zyll de Jong (1972:85).

Holotype: USNM 127888. Skull only. Young adult male. Collected [FC: 22] May 1903 by W. H. Osgood. Original number 2290.

Type Locality: [FC: Near head of 12 Mile Arm], Kasaan Bay, Prince of Wales Island, Alaska.

***Lutra repanda* Goldman**

Smithson. Misc. Collect. 63(5): 3, 14 Mar 1914.

= *Lontra longicaudus annectens* (Major, 1897). See Van Zyll de Jong (1972:87).

Holotype: USNM 179974. Skin and skull. Adult male. Collected 30 May 1912 by E. A. Goldman. Original number 21758.

Type Locality: Cana [Hall and Kelson (1959:948): (Santa Cruz de Cana), Upper Rio Tuyra], 2,000 ft (610 m), [Darien], eastern Panama.

***Lutra vancouverensis* Goldman**

Proc. Biol. Soc. Wash. 48: 186, 15 Nov 1935.

= *Lontra canadensis mira* (Goldman, 1935). See Van Zyll de Jong (1972:85).

Holotype: USNM 137775. Skull only. Adult male. Collected in 1905 by H. O. Bergh. No original number. X-Catalogue number 5517[-X].

Type Locality: [XC: Near] Quatsino, [XC: northwest coast of] Vancouver Island, British Columbia, [Canada].

Genus *Lutra* Brisson, 1762***Lutra stejnegeri* Goldman**

J. Mammal. 17: 164, 14 May 1936c.

= *Lutra lutra lutra* (Linnaeus, 1758). See Ellerman and Morrison-Scott (1951:276).

Holotype: USNM 49485. Skull [and skeleton], not skull only as given in original description. Subadult, probably male. Collected in 1882 or 1883 by L. Stejneger. No original number.

Type Locality: Near Petropavlovsk (Petropavlovsk-Kamchatskiy), Kamchatka (Kamchatskiy), Siberia (Russia).

Genus *Martes* Pinel, 1792***Martes pennanti columbiana* Goldman**

Proc. Biol. Soc. Wash. 48: 176, 15 Nov 1935.

Holotype: USNM 56953. Skull only. Adult male. Collected in 1893 by W. E. Traill. No original number.

Type Locality: Stuart Lake, near headwaters of Fraser River, British Columbia, [Canada].

***Mustela americana abieticola* Preble**

N. Am. Fauna 22: 68, 31 Oct 1902.

= *Martes americana abieticola* (Preble, 1902). See G. S. Miller (1912c:92).

Holotype: USNM 19256/34962. Skin, skull, and skeleton. Adult male. Collected Feb 1890 by R. MacFarlane. Original number [SL: 54].

Type Locality: Cumberland House, Saskatchewan, [Canada].

***Mustela americana actuosa* Osgood**

N. Am. Fauna 19: 43, 6 Oct 1900.

= *Martes americana actuosa* (Osgood, 1900). See G. S. Miller (1912c:93).

Holotype: USNM 6043. Skull only. Old adult male. Collected [MC: Nov 1860] by R. Kennicott. Original number [MC: 1017].

Type Locality: Fort Yukon, Alaska.

Remarks: A skin, USNM 6413, belongs to the skull, but it has been missing at least since Lyon and Osgood (1909:222).

***Mustela caurina* Merriam**

N. Am. Fauna 4: 27, 8 Oct 1890b.

= *Martes caurina* (Merriam, 1890). See MacDonald and Cook (2007) and authors therein for considering *caurina* a valid species.

Holotype: USNM 186450. Skin and skull. Young adult male. Collected 4 Feb 1886 by L. C. Toney. Original number [MCC: 9]. Merriam collection number 2054/2578.

Type Locality: Coast near Grays Harbor, Chehalis (Grays Harbor) County, Washington.

Remarks: Published as Merriam collection number 2054/2578. Cataloged as USNM 186450 on 13 Oct 1911.

***Mustela caurina origenes* Rhoads**

Proc. Acad. Nat. Sci. Phila. 54: 458, 30 Sep 1902.

= *Martes caurina* (Merriam, 1890). See Carr and Hicks (1997:17). Status of subspecies unresolved according to MacDonald and Cook (2007:91).

Holotype: USNM 112170. [Skin and skull]. Young adult female. Collected 16 Sep 1901 by E. T. Seton (E. Seton-Thompson). No original number.

Type Locality: Marvine Mountain, Garfield? (Rio Blanco) County, Colorado.

***Mustela nesophila* Osgood**

N. Am. Fauna 21: 33, 26 Sep 1901.

= *Martes caurina* (Merriam, 1890). See Carr and Hicks (1997:21). Status of subspecies unresolved according to MacDonald and Cook (2007:91).

Holotype: USNM 78066. Skull only. [Lyon and Osgood (1909:222): Adult] male. Collected on unknown date by J. H. Keen. No original number. [MC: Cataloged 9 Jun 1896].

Type Locality: Massett (Masset), Graham Island, Queen Charlotte Islands (Haida Gwaii Archipelago), British Columbia, [Canada].

Genus *Mellivora* Storr, 1780

***Mellivora abyssinica* Hollister**

Smithson. Misc. Collect. 56(13): 1, 10 Oct 1910a.

= *Mellivora capensis abyssinica* Hollister, 1910. See G. M. Allen (1939:182).

Holotype: USNM 171876. Skin and skull. Old adult female. Collected in 1909 by H. Philip. No original number.

Type Locality: Vicinity of Addis Ababa (Adis Abeba), [Adis Abeba], Abyssinia (Ethiopia). Restricted by Hollister (1911b:37) to Suksukki River, a small stream which connects Lake Zwai with Lake Hora Schalo, about midway between the two lakes, which with others lie between 7° and 8° north latitude, and between 38° and 39° longitude east, altitude 4,500 ft (1,372 m) to 5,000 ft (1,524 m).

***Mellivora sagulata* Hollister**

Smithson. Misc. Collect. 56(13): 2, 10 Oct 1910a.

= *Mellivora capensis cottoni* Lydekker, 1906. See Vanderhaar and Hwang (2003:1).

Holotype: USNM 171875. Skin and skull. Adult male. Collected Sep 1889 by W. L. Abbott. No original number.

Type Locality: Mount Kilimanjaro, altitude 5,000 ft (1,524 m), [Kilimanjaro], East Africa (Tanzania).

Genus *Mustela* Linnaeus, 1758

***Mustela campestris* Jackson**

Proc. Biol. Soc. Wash. 26: 124, 21 May 1913.

= *Mustela nivalis campestris* Jackson, 1913. See Hall (1981:992). Holotype: USNM 171490. Skin and skull. Adult male. Collected 18 Apr 1911 by G. Sharp. No original number. [SL: 8440-X].

Type Locality: Beemer, [Cuming County], Nebraska.

***Mustela costaricensis* Goldman**

Proc. Biol. Soc. Wash. 25: 9, 23 Jan 1912b.

= *Mustela frenata costaricensis* Goldman, 1912. See Hall (1936:109).

Holotype: USNM 13770/37149. Skin and skull. Young adult, sex not given. Collected on unknown date by C. H. Van Patten. No original number. [MC: Cataloged 11 Jun 1883].

Type Locality: San Jose, [San Jose], Costa Rica.

***Mustela erminea celenda* Hall**

Proc. Biol. Soc. Wash. 57: 38, 28 Jun 1944.

Holotype: USNM 130987. Skin and skull. Adult male. Collected 16 Jun 1903 by C. Catt. Original number [XC: 1]. 4407-X.

Type Locality: Kasaan Bay, Prince of Wales Island, Alaska.

***Mustela erminea gulosa* Hall**

J. Mammal. 26: 84, 23 Feb 1945a.

Holotype: USNM 81998. Skin and skull. Subadult male. Collected 3 Feb 1897 by P. Schmid. No original number. 147-[XC: X].

Type Locality: Trout Lake, [SL: Mt. Adams], Klickitat County, Washington.

***Mustela erminea olympica* Hall**

J. Mammal. 26: 81, 23 Feb 1945a.

Holotype: USNM 90738. Skin and skull. Adult male. Collected 28 Aug 1897 by V. Bailey. Original number 6213.

Type Locality: Near head of Soleduc (Sol Duc) River, altitude 4,500 ft (1,372 m), Olympic Mountains, Clallam County, Washington.

***Mustela frenata panamensis* Hall**

Proc. Biol. Soc. Wash. 45: 139, 9 Sep 1932.

Holotype: USNM 170970. Skin and skull. Subadult female. Collected 17 Feb 1911 by E. A. Goldman. Original number [FC: Nelson and Goldman] 20897.

Type Locality: Rio Indio, Canal Zone, near Gatun, [Colon], Panama.

***Mustela frenata perotae* Hall**

Carnegie Inst. Wash. Publ. 473: 100, 20 Nov 1936.

Holotype: USNM 54278. Skin and skull. Adult female. Collected 26 May 1893 by E. W. Nelson. Original number 4864.

Type Locality: Cofre de Perote, altitude 12,500 ft (3,810 m), Vera Cruz (Veracruz), Mexico.

***Mustela lineiventer* Hollister**

Proc. Biol. Soc. Wash. 26: 2, 18 Jan 1913a.

= *Mustela eversmannii michnoi* (Katschenko, 1910). See Wozencraft (2005:614).

Holotype: USNM 175440. Skin and skull. Adult male. Collected 10 Jul 1912 by N. Hollister. Original number 4281.

Type Locality: Tchegan-Burgazi Pass, altitude 9,000 ft (2,743 m), Little Altai [Mountains, Altayskiy], Siberia (Russia).

***Mustela lymani* Hollister**

Smithson. Misc. Collect. 60(14): 5, 29 Nov 1912b.

= *Mustela erminea lymani* Hollister, 1912. See Ognev (1935:28).

Holotype: USNM 175198. Skin and skull. Adult male. Collected 10 Aug 1912 by N. Hollister. Original number 4494.

Type Locality: Tapucha, Altai Mountains, [Altayskiy], Siberia (Russia).

***Mustela meridana* Hollister**

Proc. Biol. Soc. Wash. 27: 143, 10 Jul 1914b.

= *Mustela frenata affinis* Gray, 1874. See Wozencraft (2005:615).

Holotype: USNM 123341. Skin and skull. Adult male. Collected 14 Aug 1903 by S. Briceño. No original number.

Type Locality: Sierra de Merida, altitude 1,630 m, near Merida, [Merida], Venezuela.

***Mustela peninsulae olivacea* A. H. Howell**

Proc. Biol. Soc. Wash. 26: 139, 21 May 1913.

= *Mustela frenata olivacea* A. H. Howell, 1913. See Hall (1936:105).

Holotype: USNM 180802. [Skin and skull]. Adult male. Collected 22 Dec 1912 by L. S. Golsan. Original number 144. 9988-X.

Type Locality: Autaugaville, [Autauga County], Alabama.

***Mustela primulina* Jackson**

Proc. Biol. Soc. Wash. 26: 123, 21 May 1913.

= *Mustela frenata primulina* Jackson, 1913. See Hall (1936:104).

Holotype: USNM 168006. Skin and skull. Subadult female. Collected 11 May 1905 by H. H. T. Jackson. Original number 552. [SL: 7869-X].

Type Locality: 5 mi (8 km) northeast of Avilla, Jasper County, Missouri.

***Mustela tiarata* Hollister**

Proc. Biol. Soc. Wash. 26: 2, 18 Jan 1913a.

= *Mustela eversmannii michnoi* (Katschenko, 1910). See Wozencraft (2005:614).

Holotype: USNM 155160. Skin and skull. Immature male. Collected 24 Jul 1909 by A. de C. Sowerby. Original number 196.

Type Locality: Chui-ning-chow (Jingning?), altitude 5,500 ft (1,676 m), 150 mi (241 km) east of Lanchow (Lanzhou), Kansu (Gansu), China.

***Putorius alleni* Merriam**

N. Am. Fauna 11: 24, 30 Jun 1896b.

= *Mustela frenata alleni* (Merriam, 1896). See Hall (1936:106).

Holotype: USNM 186451. Skin and skull. Adult male. Collected 12 Jul 1888 by V. Bailey. Original number 90. Merriam collection number 4485/5120.

Type Locality: [FC: likely taken at Wilcox's Ranch, 4 mi (6 km) west of] Custer, Black Hills, [Custer County], South Dakota.

Remarks: Published as Merriam collection number 4485/5120; cataloged as USNM 186451 on 14 Oct 1911.

***Putorius arcticus* Merriam**

N. Am. Fauna 11: 15, 30 Jun 1896b.

= *Mustela erminea arctica* (Merriam, 1896). See Ognev (1935:31).

Holotype: USNM 14062/23010. Skin and skull. Adult male. Collected 16 Jul 1883 by J. Murdoch. Original number 1672.

Type Locality: Point Barrow, Alaska.

***Putorius arcticus kadiacensis* Merriam**

N. Am. Fauna 11: 16, 30 Jun 1896b.

= *Mustela erminea kadiacensis* (Merriam, 1896). See Hall (1945b:179).

Holotype: USNM 65290. [Skin and skull]. [Lyon and Osgood (1909:219): Young] adult male. Collected 25 Apr 1894 by B. J. Bretherton. Original number [SL: 304].

Type Locality: Kadiak (Kodiak) Island, Alaska.

***Putorius culbertsoni* Coues**

U.S. Geol. Surv. Territ. Misc. Publ. 8: 136, 1877.

= *Mustela frenata longicauda* Bonaparte, 1838. See Hall (1936:105).

Syntype: USNM 4320/37995. Skin and skull. Age and sex not given. Collected Dec 1859 by [SL: F. V. Hayden. Original number 75].

Syntype: USNM 4325. [Skin only]. Age and sex not given. Collected [MC: 8 Aug 1860 by G. H. Took]. No original number.

Type Localities: USNM 4320/37995, Fort Laramie, [Goshen County], Wyoming. USNM 4325, Old Fort Union, [Williams County], Montana (now North Dakota).

Remarks: Both specimens were published with just the skin numbers. According to Lyon and Osgood (1909:218), the skull was removed from USNM 4320 in Jan 1902. It was cataloged as USNM 37995 on 29 Jan 1902. Nothing is known of the whereabouts of USNM 4325.

***Putorius frenatus goldmani* Merriam**

N. Am. Fauna 11: 28, 30 Jun 1896b.

= *Mustela frenata goldmani* (Merriam, 1896). See Miller (1912c:100).

Holotype: USNM 77519. [Skin and skull]. Adult male. Collected 10 Feb 1896 by E. A. Goldman. Original number [FC: Nelson and Goldman] 9279.

Type Locality: Pinabete, altitude about 8,200 ft (2,500 m), Chiapas, Mexico.

***Putorius frenatus leucoparia* Merriam**

N. Am. Fauna 11: 29, 30 Jun 1896b.

= *Mustela frenata leucoparia* (Merriam, 1896). See Miller (1912c:100).

Holotype: USNM 34914/47179. Skin and skull. Adult male. Collected 27 Jul 1892 by E. W. Nelson. Original number 2960.

Type Locality: Patzcuaro, [FC: altitude about 7,000 ft (2,134 m)], Michoacan, Mexico.

***Putorius haidarum* Preble**

Proc. Biol. Soc. Wash. 12: 169, 10 Aug 1898.

= *Mustela erminea haidarum* (Preble, 1898). See Hall (1944:38).

Holotype: USNM 94430. Skin, skull, [and skeleton]. [Lyon and Osgood (1909:219): Adult] [SL: male]. Collected 17 Mar 1898 by J. H. Keen. No original number. [SL: 1800-X].

Type Locality: Massett (Masset), [Graham Island], Queen Charlotte Islands (Haida Gwaii Archipelago), B[ritish] C[olumbia, Canada].

***Putorius kaneii* Baird**

Mammals Rep. Explor. Surv. 8(1): 172. 1857.

= *Mustela erminea kaneii* (Baird, 1857). See Hall (1951:98).

Holotype: USNM 2330/37900. Skin in summer pelage [and skull]. [Lyon and Osgood (1909:219): Adult], sex not given. Collected on unknown date by [MC: W.] Stimpson. Original number [SL: 358]. [MC: Skin cataloged in Mar 1857; the skull 11 Jan 1902].

Type Locality: Arikamitchi Island (Ostrov Arakamchechen), Bering Straits, Tchuktchi Country (Chukotskiy), [Russia].

Remarks: No holotype was designated by number in the original description. Baird (1857:172) mentioned a second specimen, USNM 1458, in winter pelage, but his description was based on the specimen in summer pelage, USNM 2330, to which the skull USNM 37900 belongs.

***Putorius richardsoni alascensis* Merriam**

N. Am. Fauna 11: 12, 30 Jun 1896b.

= *Mustela erminea alascensis* (Merriam, 1896). See Hall (1944:36).

Holotype: USNM 74423. [Skin and skull]. Adult male. Collected 22 Aug 1895 by C. P. Streater. Original number 4806.

Type Locality: Juneau, [FC: above timberline], Alaska.

***Putorius saturatus* Merriam**

N. Am. Fauna 11: 21, 30 Jun 1896b.

= *Mustela frenata saturata* (Merriam, 1896). See Hall (1936:106).

Holotype: USNM 65930. [Skin and skull]. Adult male. Collected 6 Jun 1894 by C. P. Streater. Original number 3905.

Type Locality: Siskiyou, altitude about 4,000 ft (1,219 m), [FC: Jackson County], near the southern boundary of Oregon.

***Putorius streator* Merriam**

N. Am. Fauna 11: 13, 30 Jun 1896b.

= *Mustela erminea streator* (Merriam, 1896). See Hall (1945a:77).

Holotype: USNM 76646. [Skin and skull]. Adult male. Collected 29 Feb 1896 by D. H. Luckey. Original number 3.

Type Locality: Mount Vernon, Skagit Valley, Skagit County, Washington.

***Putorius streator leptus* Merriam**

Proc. Biol. Soc. Wash. 16: 76, 29 May 1903.

= *Mustela erminea muricus* Bangs, 1899. See Hall (1945b:182).

Holotype: USNM 56800. [Skin and skull]. Young adult male. Collected 20 Oct 1893 by J. A. Loring. Original number 1185.

Type Locality: Silverton, [San Juan County], Colorado.

***Putorius tropicalis* Merriam**

N. Am. Fauna 11: 30, 30 Jun 1896b.

= *Mustela frenata tropicalis* (Merriam, 1896). See Hall (1936:109).

Holotype: USNM 54994. [Skin and skull]. Adult male. Collected 9 Jul 1893 by E. W. Nelson. Original number 5195.

Type Locality: Jico, altitude 6,000 ft (1,800 m), Vera Cruz (Veracruz), Mexico.

***Putorius tropicalis perdus* Merriam**

Proc. Biol. Soc. Wash. 15: 67, 22 Mar 1902e.

= *Mustela frenata perda* (Merriam, 1902). See Hall (1936:109).

Holotype: USNM 100041. [Skin and skull]. Adult male. Collected 31 Mar 1900 by E. W. Nelson and E. A. Goldman.

Original number 14074.

Type Locality: Teapa, Tabasco, Mexico.

***Putorius washingtoni* Merriam**

N. Am. Fauna 11: 18, 30 Jun 1896b.

= *Mustela frenata washingtoni* (Merriam, 1896). See Hall (1936:106).

Holotype: USNM 76322. [Skin and skull]. Adult male. Collected 15 Dec 1895 by D. N. Kaegi. Original number [SL: 2].

Type Locality: Trout Lake, [Miller and Rehn (1901:223): south] base of Mount Adams, [Klickitat County], Washington.

***Putorius xanthogenys oregonensis* Merriam**

N. Am. Fauna 11: 25, 30 Jun 1896b.

= *Mustela frenata oregonensis* (Merriam, 1896). See Hall (1936:107).

Holotype: USNM 32019/43828. Skin and skull. Adult female. Collected 19 Dec 1891 by C. P. Streater. Original number 1404.

Type Locality: [FC: By slaughterhouse], Grants Pass, Rogue River Valley, [Josephine County], Oregon.

Genus *Neovison* Baryshnikov and Abramov, 1997

***Lutreola macrodon* Prentiss**

Proc. U.S. Natl. Mus. 26: 888, 6 Jul 1903.

= *Neovison macrodon* (Prentiss, 1903). See Abramov (1999:362).

Holotype: USNM 115178. Fragments of skull. Sex not given.

Collected in 1897 by F. W. True and D. W. Prentiss Jr. No original number.

Type Locality: Pre-Columbian shell heaps, Brooklin, Hancock County, Maine.

***Lutreola vison ingens* Osgood**

N. Am. Fauna 19: 42, 6 Oct 1900.

= *Neovison vison ingens* (Osgood, 1900). See Wozencraft (2005:619).

Holotype: USNM 6530. Skull only. Old adult, [Lyon and Osgood (1909:221): probably] male. Collected [MC: 15 Feb 1862] by R. Kennicott. Original number [MC: 262].

Type Locality: Fort Yukon, Alaska.

***Lutreola vison lacustris* Preble**

N. Am. Fauna 22: 66, 31 Oct 1902.

= *Neovison vison lacustris* (Preble, 1902). See Wozencraft (2005:619).

Holotype: USNM 106872. Skin and skull. Young adult male. Collected 14 Sep 1900 by E. A. and A. E. Preble. Original number [FC: EAP] 3518.

Type Locality: [FC: Upper dam], Echimamish River, near Painted Stone [Miller (1924:126): portage], Keewatin (Manitoba), Canada.

***Mustela vison aniakensis* Burns**

Can. J. Zool. 42: 1073, Nov 1964.

= *Neovison vison aniakensis* (Burns, 1964). See Wozencraft (2005:619).

Holotype: USNM 337939. [Skin and skull]. Adult female. Collected 25 Nov 1962 by J. Bloomquist. Original number [SL: 490].

Type Locality: Vicinity of Aniak, along the Salmon River, Alaska.

***Mustela vison evergladensis* Hamilton**

Proc. Biol. Soc. Wash. 61: 139, 3 Sep 1948.

= *Neovison vison evergladensis* (Hamilton, 1948). See Wozencraft (2005:619).

Holotype: USNM 514830. Skin and skull. Adult female. Collected 7 Mar 1947 by W. J. Piper. Original number [MC: W. J. Hamilton, Jr. 2474]. Cornell University Museum number 3850.

Type Locality: Tamiami Trail, U.S. Route 94, 5 mi (8 km) southeast of Royal Palm Hammock, Collier County, Florida.

Remarks: Published as Cornell University Museum number 3850; cataloged as USNM 514830 on 25 Aug 1977.

***Mustela vison letifera* Hollister**

Proc. U.S. Natl. Mus. 44: 475, 18 Apr 1913b.

= *Neovison vison letifera* (Hollister, 1913). See Wozencraft (2005:619).

Holotype: USNM 188305. Skin and skull. Adult male. Collected 7 Nov 1885 by V. Bailey. Original number [SL: 3. Merriam collection number 1575/2189].

Type Locality: Elk River, [Sherburne County], Minnesota.

Genus *Taxidea* Waterhouse, 1839

***Taxidea americana neglecta* Mearns**

Bull. Am. Mus. Nat. Hist. 3: 250, 5 Jun 1891.

= *Taxidea taxus jeffersonii* (Harlan, 1825). See Long (1972:732).

Holotype: USNM 3835/4196. Skin and skull. [Lyon and Osgood (1909:227): Adult] male. Collected 25 Mar 1859 by J. Feilner. Original number 313.

Type Locality: Fort Crook, [Shasta County], northern California.

Remarks: Published as USNM 4196, a skull to which skin USNM 3835 belongs.

***Taxidea berlandieri* Baird**

Mammals Rep. Explor. Surv. 8(1): 205, 1857.

= *Taxidea taxus berlandieri* Baird, 1857. See J. A. Allen (1895:256).

Holotype: USNM 1710. Skin only. Male, [sex unknown]. Collected [SL: 8 May 1855], [collector unknown]. Received from J. Pope.

Type Locality: Llano Estacado, [Miller and Rehn (1901:217): near border of New Mexico], Texas.

***Taxidea taxus apache* Schantz**

Proc. Biol. Soc. Wash. 61: 175, 12 Nov 1948.

= *Taxidea taxus berlandieri* Baird, 1857. See Long (1972:745).

Holotype: USNM 20747/35880. Skin and skull. Young adult female. Collected 20 Oct 1892 by E. A. Mearns and F. X. Holzner. Original number 2139.

Type Locality: San Pedro River, Arizona and Sonora, Mexico–United States boundary line.

Taxidea taxus dacotensis Schantz

Proc. Biol. Soc. Wash. 59: 81, 19 Jun 1946a.

= *Taxidea taxus taxus* (Schreber, 1777). See Long (1972:738).

Holotype: USNM 223233. Skull only. Adult male. Collected 9 Sep 1916 by T. C. Beach. Original number 26. Biological Surveys miscellaneous number 17782-X.

Type Locality: Folsom, Custer County, South Dakota.

Taxidea taxus ballorani Schantz

J. Mammal. 30: 302, 17 Aug 1949.

= *Taxidea taxus berlandieri* Baird, 1857. See Long (1972:745).

Holotype: USNM 275196. Skin and skull. Male, [age undetermined]. Collected 18 Feb 1947 by A. F. Halloran. Original number 135. [SL: 32552-X].

Type Locality: Imperial Refuge, Kofa Game Range, Castle Dome Mountains, Yuma County, Arizona.

Taxidea taxus iowae Schantz

J. Mammal. 28: 287, 19 Aug 1947.

= *Taxidea taxus taxus* (Schreber, 1777). See Long (1972:738).

Holotype: USNM 275169. Skin and skull. Young adult male. Collected 8 Dec 1946 by H. T. Maltby. Original number 1. Biological Surveys miscellaneous number 32525-X.

Type Locality: Near Clarion, Wright County, Iowa.

Taxidea taxus jacksoni Schantz

J. Mammal. 26: 431, 12 Feb 1946b.

Holotype: USNM 117315. Skin and skull. Adult male. Collected 13 Jun 1902 by H. H. T. Jackson. No original number, 3739-X.

Type Locality: 4 mi (6 km) east of Milton, Rock County, Wisconsin.

Taxidea taxus littoralis Schantz

J. Mammal. 30: 301, 17 Aug 1949.

= *Taxidea taxus berlandieri* Baird, 1857. See Long (1972:745).

Holotype: USNM 116763. Skin only. Adult male. Collected 6 Aug (?) 1901 by J. M. Priour. Original number 1. Biological Surveys miscellaneous number 3611-X.

Type Locality: Corpus Christi, Nueces County, Texas.

Taxidea taxus merriami Schantz

J. Wash. Acad. Sci. 40: 92, 15 Mar 1950a.

= *Taxidea taxus taxus* (Schreber, 1777). See Long (1972:738).

Holotype: USNM 188609. Skin and skull. Old female. Collected 16 Nov 1886 by A. B. Baker. No original number. Merriam collection number 3074/3714.

Type Locality: Banner, Trego County, Kansas.

Taxidea taxus montana Schantz

J. Mammal. 31: 90, 21 Feb 1950b.

= *Taxidea taxus jeffersonii* (Harlan, 1825). See Long (1972:732). Holotype: USNM 214912. Skin and skull. Adult male. Collected 3 May 1916 by R. W. Gray. Original number 48. Biological Surveys miscellaneous number 16265-X.

Type Locality: 35 mi (56 km) south of Dillon, Beaverhead County, Montana.

Taxidea taxus nevadensis Schantz

J. Mammal. 30: 304, 17 Aug 1949. Primary junior homonym of *Taxidea nevadensis* Butterworth, 1916. Replaced with *Taxidea taxus halli* by Schantz (1951:127).

= *Taxidea taxus berlandieri* Baird, 1857. See Long (1972:745).

Holotype: USNM 276007. Skin and skull. Adult male. Collected 27 Jun 1947 by O. V. Deming. Original number 1. 33134-X.

Type Locality: White Sage Flat, between Desert Range and Sheep Range [XC: Mountain], Desert Game Range, Clark County, Nevada.

Taxidea taxus sonoriensis Goldman

J. Wash. Acad. Sci. 29: 300, 15 Jul 1939a.

= *Taxidea taxus berlandieri* Baird, 1857. See Long (1972:745).

Holotype: USNM 96211. Skin and skull. Young adult male. Collected 29 Nov 1898 by E. A. Goldman. Original number [FC: Nelson and Goldman] 13263.

Type Locality: Camoa, [FC: altitude about 800 ft (244 m)], Rio Mayo, about 15 mi (24 km) above Navojoa, Sonora, Mexico.

Genus *Vormela* Blasius, 1884

Vormela negans Miller

Proc. U.S. Natl. Mus. 38: 385, 19 Aug 1910a.

= *Vormela peregusna negans* Miller, 1910. See Ellerman and Morrison-Scott (1951:267).

Holotype: USNM 155001. Skin only. Adult male. Collected 18 [SL and FC: 15] Nov 1908 by natives. Original number A. de C. Sowerby 92.

Type Locality: Ordos Desert about 100 mi (161 km) north of Yu-ling-fu (Yulin), [SL: altitude 4,000 ft (1,219 km)], Shensi (Nei Monggol), China.

FAMILY MEPHITIDAE BONAPARTE, 1845

Genus *Conepatus* Gray, 1837

Conepatus filipensis Merriam

Proc. Biol. Soc. Wash. 15: 163, 6 Aug 1902f.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 68172. [Skin and skull]. Adult male. Collected 24 Aug 1894 by E. W. Nelson and E. A. Goldman. Original number 6619.

Type Locality: Cerro San Felipe, altitude 10,000 ft (3,048 m), Oaxaca, [SL: Mexico].

***Conepatus leuconotus texensis* Merriam**

Proc. Biol. Soc. Wash. 15: 162, 6 Aug 1902f.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 34857/47122. Skin and skull. Adult male. Collected 20 Jul 1892 by F. B. Armstrong. Original number 70.

Type Locality: Brownsville, Lower Rio Grande, [Cameron County], Texas.

***Conepatus mesoleucus mearnsi* Merriam**

Proc. Biol. Soc. Wash. 15: 163, 6 Aug 1902f.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 186455. Skin and skull. Adult female [SL, MCC, and MC: male]. Collected 20 Feb 1886 by I. B. Henry. Original number [SL: 69]. Merriam collection number 2154/2681.

Type Locality: Mason, Mason County, Texas.

Remarks: Published as Merriam collection number 2154/2681; cataloged as USNM 186455 on 14 Oct 1911.

***Conepatus mesoleucus nelsoni* Goldman**

J. Mammal. 3: 41, 8 Feb 1922.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 33252/45257. Skin and skull. Old adult male. Collected 3 Mar 1892 by E. W. Nelson. Original number 2004.

Type Locality: Armeria, altitude 200 ft (61 m), near Manzanillo, Colima, Mexico.

***Conepatus mesoleucus telmalestes* Bailey**

N. Am. Fauna 25: 203, 24 Oct 1905.

= *Conepatus leuconotus telmalestes* Bailey, 1905. See Dragoo et al. (2003:169).

Holotype: USNM 136551. [Skin and skull]. Adult male. Collected 17 Mar 1905 by J. H. Gaut. Original number 3485.

Type Locality: Big Thicket, 7 mi (11 km) northeast of Sour Lake, [Hardin County], Texas.

***Conepatus mesoleucus venaticus* Goldman**

J. Mammal. 3: 40, 8 Feb 1922.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 205376. [Skin and skull]. Old adult male. Collected 1 Sep 1914 by E. A. Goldman. Original number 22459.

Type Locality: Cospers Ranch, altitude 5,000 ft (1,524 m), Blue River, 12 mi (19 km) south of Blue, [Greenlee County], Arizona.

***Conepatus pediculus* Merriam**

Proc. Biol. Soc. Wash. 15: 164, 6 Aug 1902f.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 116953. [Skin and skull]. Young adult male. Collected 25 Apr 1902 by E. W. Nelson and E. A. Goldman. Original number 15123.

Type Locality: Sierra Guadalupe, [FC: altitude about 6,500 ft (1,981 m)], Coahuila, Mexico.

***Conepatus sonoriensis* Merriam**

Proc. Biol. Soc. Wash. 15: 162, 6 Aug 1902f.

= *Conepatus leuconotus leuconotus* Lichtenstein, 1832. See Dragoo et al. (2003:168).

Holotype: USNM 95914. [Skin and skull]. Young adult female. Collected 29 Oct 1898 by E. A. Goldman. Original number [FC: Nelson and Goldman] 13213.

Type Locality: Camoa, [FC: altitude about 800 ft (244 m)], Rio Mayo, Sonora, Mexico.

***Conepatus tropicalis* Merriam**

Proc. Biol. Soc. Wash. 15: 164, 6 Aug 1902f.

= *Conepatus semistriatus coneptil* (Gmelin, 1788). See Hershkovitz (1951:562).

Holotype: USNM 63650. [Skin and skull]. Adult female. Collected 26 Feb 1894 by E. W. Nelson and E. A. Goldman. Original number 5903.

Type Locality: Motzorongo, [FC: altitude 800 ft (244 m)], Vera Cruz (Veracruz), Mexico.

Remarks: We believe Wozencraft (2005:622) erroneously placed *tropicalis* as a synonym of *C. s. amazonicus* and follow Hall (1981:1027) and Dragoo (2009:557) in use of the trinomial given above.

***Conepatus tropicalis yucatanicus* Goldman**

Proc. Biol. Soc. Wash. 56: 89, 1 Oct 1943c.

= *Conepatus semistriatus yucatanicus* Goldman, 1943. See Miller and Kellogg (1955:761).

Holotype: USNM 108502. Skin and skull. Young adult male. Collected 19 Mar 1901 by E. W. Nelson and E. A. Goldman. Original number 14652.

Type Locality: La Vega, on mainland coast opposite Isla Cancun, Quintana Roo, Mexico.

Genus *Mephitis* E. Geoffroy and G. Cuvier, 1795

***Chincha occidentalis major* A. H. Howell**

N. Am. Fauna 20: 37, 31 Aug 1901.

= *Mephitis mephitis major* (A. H. Howell, 1901). See Hall (1931:2).

Holotype: USNM 92238. [Skin and skull]. Adult male. Collected 5 Jan 1898 by B. L. Cunningham. Original number 80. [SL: 11889-X].

Type Locality: [XC: Anna Creek, upper end of Wood River Valley], Fort Klamath, [Klamath County], Oregon.

***Chincha occidentalis notata* A. H. Howell**

N. Am. Fauna 20: 36, 31 Aug 1901.

= *Mephitis mephitis notata* (A. H. Howell, 1901). See Hall (1936:67).

Holotype: USNM 87043. [Skin and skull]. Adult male. Collected 22 Mar 1897 by P. Schmid. No original number. [SL: 243-X].

Type Locality: Trout Lake, Mount Adams, [Klickitat County], Washington.

Remarks: We believe Wozencraft (2005:622) incorrectly placed *C. o. notata* A. H. Howell, 1901, as a synonym of *M. m. occidentalis* Baird, 1857, rather than as a valid subspecies as did Hall (1981:1022), Wade-Smith and Verts (1982:1), and Drago (2009:559).

***Chincha platyrhina* A. H. Howell**

N. Am. Fauna 20: 39, 31 Aug 1901.

= *Mephitis mephitis occidentalis* Baird, 1857. See Hall (1936:67).

Holotype: USNM 29284/41351. Skin and skull. Adult male. Collected 5 Jul 1891 by V. Bailey. Original number 2998.

Type Locality: South fork of Kern River, 25 mi (40 km) east of Kernville, [A. B. Howell (1923:266): 3 mi (5 km) above Onyx, Kern County], California.

***Mephitis estor* Merriam**

N. Am. Fauna 3: 81, 11 Sep 1890a.

= *Mephitis mephitis estor* Merriam, 1890. See Hall (1931:1).

Holotype: USNM 17709/24645. Skin and skull. Adult male. Collected 17 Aug 1889 by V. Bailey. Original number 369.

Type Locality: [Miller and Kellogg (1955:756): Little Spring, altitude 8,200 ft (2,499 m), north base of] San Francisco Mountain, [Coconino County], Arizona.

***Mephitis frontata* Coues**

Bull. U.S. Geol. Geogr. Surv. Territ. (ser. 2), 1: 7, 1875.

= *Mephitis mephitis nigra* (Peale and Beauvois, 1796). See Hall (1936:69).

Holotype: USNM 2232. Skull only. [Lyon and Osgood (1909:224): Old adult], sex not given. Obtained on unknown date by S. F. Baird. [MC: Cataloged 28 Mar 1856].

Type Locality: Bone caves of [Lyon and Osgood (1909:224): Dales Cave, 3 mi (5 km) from (Poole and Schantz, 1942:68: northwest of) Lewisburg], [Poole and Schantz (1942:68): Union County], Pennsylvania.

***Mephitis milleri* Mearns**

Proc. U.S. Natl. Mus. 20: 1, 11 Feb 1897c. Preprint of Proc. U.S. Natl. Mus. 20: 467, 24 Dec 1897d.

= *Mephitis macroura milleri* Mearns, 1897. See J. A. Allen (1901:334).

Holotype: USNM 58851. Skin and skull. Adult male. Collected 13 Nov 1893 by F. X. Holzner. Original number [FC: Mearns and Holzner] 1109.

Type Locality: Fort Lowell, near Tucson, [FC: Pima County], Arizona.

***Mephitis occidentalis* Baird**

Mammals Rep. Explor. Surv. 8(1): 194, 1857.

= *Mephitis mephitis occidentalis* Baird, 1857. See Hall (1936:67).

Lectotype as designated by Lyon and Osgood (1909:225): USNM 1944/2617. Skull only. [Lyon and Osgood (1909:225): Adult, probably male]. Collected on unknown date by E. Samuels. Original number [MC: 837. Cataloged 10 Dec 1856].

Type Locality: Petaluma, [Sonoma County], California.

Remarks: According to the museum catalog, the skin of this specimen, USNM 1944, was destroyed 8 Jan 1886.

Genus *Spilogale* Gray, 1865***Spilogale ambigua* Mearns**

Proc. U.S. Natl. Mus. 20: 3, 12 Jan 1897a. Preprint of Proc. U.S. Natl. Mus. 20: 460, 24 Dec 1897b.

= *Spilogale gracilis leucoparia* Merriam, 1890. See Verts et al. (2001:1).

Holotype: USNM 20302/35606. Skin and skull. Adult male. Collected 23 Mar 1892 by Doctor [E. A.] Mearns and F. X. Holzner. Original number 1574.

Type Locality: [SL: Summit of] Eagle [SL: Cliff] Mountain, Chihuahua, Mexico, about 4 mi (6 km) south of monument 15 [SL: 2 mi (3 km) south of monument 50 of the Emory Survey], Mexican Boundary Line, [SL: lat. 31°47', long. 30°15'].

***Spilogale angustifrons* A. H. Howell**

Proc. Biol. Soc. Wash. 15: 242, 16 Dec 1902.

Holotype: USNM 50825. [Skin and skull]. Adult male. Collected 15 Dec 1892 by E. W. Nelson and E. A. Goldman. Original number [FC: EWN] 4035.

Type Locality: Tlalpam (Tlalpan), [FC: altitude 7,600 ft (2,317 m)], [SL: Federal District (Distrito Federal)], Valley of Mexico.

***Spilogale angustifrons elata* A. H. Howell**

N. Am. Fauna 26: 27, 24 Nov 1906.

Holotype: USNM 133186. [Skin and skull]. Adult male. Collected 19 Mar 1904 by [SL: E. W. Nelson] and E. A. Goldman. Original number 16618.

Type Locality: San Bartolome, [FC: altitude 3,000 ft (914 m)], Chiapas, [SL: Mexico].

***Spilogale angustifrons tropicalis* A. H. Howell**

Proc. Biol. Soc. Wash. 15: 242, 16 Dec 1902.

Holotype: USNM 73523. [Skin and skull]. Adult male. Collected 16 May 1895 by E. W. Nelson and E. A. Goldman. Original number 7958.

Type Locality: San Mateo del Mar, [FC: altitude 25 ft (8 m)], Oaxaca, [SL: Mexico].

***Spilogale gracilis* Merriam**

N. Am. Fauna 3: 83, 11 Sep 1890a.

Holotype: USNM 17986/24897. Skin and skull. Adult male. Collected 12 Sep 1889 by C. H. Merriam. Original number [SL: V. Bailey] 451.

Type Locality: [SL: Bottom] of the Grand Canyon of the Colorado, [Hoffmeister (1986:507): Canon (Indian Gardens) Spring on the Cocanni Plateau], altitude 3,500 ft (1,067 m) [FC: 4,000 ft (1,219 m)], north of San Francisco Mountain, [Coconino County], Arizona.

***Spilogale indianola* Merriam**

N. Am. Fauna 4: 10, 8 Oct 1890c.

= *Spilogale putorius interrupta* (Rafinesque, 1820). See Van Gelder (1959:265).

Holotype: USNM 1621. Skull only. Young adult, sex not given. Collected in 1851 by J. H. Clarke (Clark). No original number.

Type Locality: Indianola, Matagorda Bay, [Calhoun County], Texas.

***Spilogale leucoparia* Merriam**

N. Am. Fauna 4: 11, 8 Oct 1890c.

= *Spilogale gracilis leucoparia* Merriam, 1890. See Verts et al. (2001:1).

Holotype: USNM 186452. Skin and skull. Adult male. Collected 2 Dec 1885 by I. B. Henry. Original number 16. Merriam collection number 1701/2270.

Type Locality: Mason, Mason County, Texas.

Remarks: Published as Merriam collection number 1701/2270; cataloged as USNM 186452 on 14 Oct 1911.

***Spilogale lucasana* Merriam**

N. Am. Fauna 4: 11, 8 Oct 1890c.

= *Spilogale gracilis lucasana* Merriam, 1890. See Hall and Kelson (1952:335).

Holotype: USNM 3970/4219. Skin and skull. Adult male. Collected on unknown date by J. Xantus. Original number 603/[SL: 610]. [MC: Skin cataloged 1 Jun 1860; the skull 27 Oct 1860].

Type Locality: Cape St. (Cabo San) Lucas, Lower California (Baja California Sur), [Mexico].

***Spilogale microdon* A. H. Howell**

N. Am. Fauna 26: 34, 24 Nov 1906.

= *Spilogale gracilis martirensis* Elliot, 1903. See Verts et al. (2001:1).

Holotype: USNM 145887. [Skin and skull]. Adult male. Collected 8 Nov 1905 by [E. W.] Nelson and [E. A.] Goldman. Original number 18501.

Type Locality: Comondu, [FC: altitude 700 ft (213 m)], Lower California (Baja California Sur), [Mexico].

***Spilogale phenax* Merriam**

N. Am. Fauna 4: 13, 8 Oct 1890c.

= *Spilogale gracilis phenax* Merriam, 1890. See Grinnell (1933:105).

Holotype: USNM 186453. Skin and skull. Adult male. Collected 31 Oct 1885 by C. A. Allen. No original number. Merriam collection number 1500/2100.

Type Locality: Nicasio, Marin County, California.

Remarks: Published as Merriam collection number 1500/2100; cataloged as USNM 186453 on 14 Oct 1911.

***Spilogale phenax latifrons* Merriam**

N. Am. Fauna 4: 15, 8 Oct 1890c.

= *Spilogale gracilis latifrons* Merriam, 1890. See Grinnell (1933:106).

Holotype: USNM 17271/24200. Skin and skull. Old female. Collected 13 Jul 1889 by T. S. Palmer. Original number 216.

Type Locality: Roseburg, Douglas County, Oregon.

***Spilogale pygmaea australis* Hall**

Ann. Mag. Nat. Hist. (ser. 11) 1: 514, May 1938.

Holotype: USNM 70581. Skin and skull. Adult male. Collected [SL: 25 Jan 1895] by E. W. Nelson and E. A. Goldman. Original number [SL: 7420].

Type Locality: Acapulco, [FC: near sea level], Guerrero, Mexico.

***Spilogale ringens* Merriam**

N. Am. Fauna 4: 9, 8 Oct 1890c.

= *Spilogale putorius putorius* (Linnaeus, 1758). See A. H. Howell (1906:15).

Holotype: USNM 23182/30642. Skin and skull. [Lyon and Osgood (1909:224): Adult] female. Collected 2 Aug 1890 by C. S. Brimley. Original number 50.

Type Locality: Greensboro, Hale County, Alabama.

***Spilogale saxatilis* Merriam**

N. Am. Fauna 4: 13, 8 Oct 1890c.

= *Spilogale gracilis gracilis* Merriam, 1890. See Verts et al. (2001:1).

Holotype: USNM 186454. Skin and skull. Adult male. Collected 13 Nov 1888 by V. Bailey. Original number 384. Merriam collection number 4928/5675.

Type Locality: Provo, [Utah County], Utah.

Remarks: Published as Merriam collection number 4928/5675; cataloged as USNM 186454 on 14 Oct 1911.

***Spilogale tenuis* A. H. Howell**

Proc. Biol. Soc. Wash. 15: 241, 16 Dec 1902.

= *Spilogale gracilis gracilis* Merriam, 1890. See Verts et al. (2001:1).

Holotype: USNM 99365. [Skin and skull]. Adult male. Collected 13 Nov 1899 by R. S. Weldon. No original number. 2198-X. Type Locality: Arkins, [Larimer County], Colorado.

FAMILY PROCYONIDAE GRAY, 1825

Genus *Bassaricyon* J. A. Allen, 1876

Bassaricyon gabbii J. A. Allen

Proc. Acad. Nat. Sci. Phila. 28: plate 1; 21, 18 Apr 1876.

Holotype: USNM 12273/14214. Skull only. Adult [J. A. Allen (1877:265): female]. Collected on unknown date by W. M. Gabb. Original number [SL: 44]. [MC: Cataloged 19 Nov 1874].

Type Locality: [SL: Talamanca], [Limon], Costa Rica.

Remarks: The new name, *Bassaricyon gabbii*, is first given on plate 1, which is an unnumbered page that proceeded page 21, where it appears again. The holotype was designated by number on page 20. The skin belonging to the skull was missing at the time of publication and has not been found.

Bassariscyon [sic] *gabi* [sic] *orinomus* Goldman

Smithson. Misc. Collect. 60(2): 16, 20 Sep 1912a.

= *Bassaricyon medius orinomus* Goldman, 1912. See Helgen et al. (2013:50).

Holotype: USNM 179157. [Skin and skull]. Adult male. Collected 10 Mar 1912 by E. A. Goldman. Original number 21474.

Type Locality: Cana (Santa Cruz de Cana), altitude 1,800 ft (549 m), [Miller and Kellogg (1955:725): Upper Rio Tuyra, Darien], in the mountains of eastern Panama.

Genus *Bassariscus* Coues, 1887

Bassariscus raptor Baird

Rep. U.S. Mexican Bound. Surv., vol. 2, pt. 2: 19 Jan 1859.

= *Bassariscus astutus raptor* (Baird, 1859). See Grinnell (1913:289).

Holotype: USNM 97/976. Skin, skull, and skeleton. Age not given, [MC: male]. Collected 23 Apr 1852 by [MC: R. J. Pollard from whom it was purchased]. No original number.

Type Locality: A hen roost near Washington [D.C.]. It was supposed to have been brought from California. Hall (1926:44) restricted the type locality to Glenn Ellen, Sonoma County, California.

Remarks: A holotype was not designated by number in the original description, which was based on a single specimen that evidently had escaped from confinement, as shown by the marks of a collar around the neck. There is no doubt that this specimen is the one described by Baird (1859:19) and is therefore a holotype by monotypy (ICZN, 1999: Article 73.1.2).

Bassariscus astutus arizonensis Goldman

Proc. Biol. Soc. Wash. 45: 87, 21 Jun 1932b.

Holotype: USNM 205388. [Skin and skull]. Adult male. Collected 1 Sep 1914 by E. A. Goldman. Original number 22461.

Type Locality: Cospers Ranch, altitude 5,000 ft (1,524 m), Blue River, about 12 mi (19 km) south of Blue, Greenlee County, Arizona.

Bassariscus astutus consitus Nelson and Goldman

J. Wash. Acad. Sci. 22: 487, 19 Oct 1932b.

Holotype: USNM 126162. [Skin and skull]. Adult female. Collected 16 Mar 1903 by [E. W.] Nelson and [E. A.] Goldman. Original number 16151.

Type Locality: La Salada, 40 mi (64 km) south of Uruapan, Michoacan, Mexico.

Bassariscus astutus insulicola Nelson and Goldman

Proc. Biol. Soc. Wash. 22: 26, 10 Mar 1909.

Holotype: USNM 79034. [Skin and skull]. Adult female. Collected 7 Aug 1895 by J. E. McLellan. Original number 1461, not 1416 as given in the original description.

Type Locality: San Jose Island (Isla San Jose), Lower California (Baja California Sur), Mexico.

Bassariscus astutus nevadensis Miller

Proc. Biol. Soc. Wash. 26: 159, 30 Jun 1913b.

Holotype: USNM 174760. Skin and skull. Adult female. Collected 8 Jan 1912 by M. Weiss. No original number.

Type Locality: Eldorado Canyon, Clark County, Nevada.

Bassariscus astutus palmarius Nelson and Goldman

Proc. Biol. Soc. Wash. 22: 26, 10 Mar 1909.

Holotype: USNM 146192. [Skin and skull]. Adult male. Collected 8 Nov 1905 by E. W. Nelson and E. A. Goldman. Original number 18500.

Type Locality: Comondu, altitude 700 ft (213 m), Lower California (Baja California Sur), Mexico.

Bassariscus saxicola Merriam

Proc. Biol. Soc. Wash. 11: 185, 1 Jul 1897d.

= *Bassariscus astutus saxicola* Merriam, 1897. See Hall (1926:46).

Holotype: USNM 79031. [Skin and skull]. Old female. Collected 19 Aug 1895 by J. E. McLellan. Original number 1438.

Type Locality: Espiritu Santo Island (Isla del Espiritu Santo), [Gulf of California], Lower California (Baja California Sur), [Mexico].

Jentinkia sumichrasti campechensis Nelson and Goldman

J. Wash. Acad. Sci. 22: 486, 19 Oct 1932b.

= *Bassariscus sumichrasti campechensis* (Nelson and Goldman, 1932). See Hall and Nelson (1959:882).

Holotype: USNM 108291. [Skin and skull]. Adult male. Collected 2 Jan 1901 by [E. W.] Nelson and [E. A.] Goldman. Original number 14386. X-Catalog number 10240 was given in error in the original description.

Type Locality: Apazote, near Yohaltun, central Campeche, Mexico.

Remarks: Even though he stated that he followed Hall (1981) for subspecies, Wozencraft (2005:625) placed *B. s. campechensis* in *B. s. sumichrasti*. We follow Hall (1981:964).

Genus *Nasua* Storr, 1780

Nasua narica isthmica Goldman

Proc. Biol. Soc. Wash. 55: 81, 25 Jun 1942.

= *Nasua narica narica* (Linnaeus, 1766). See Hershkovitz (1951:559).

Holotype: USNM 74681. Skin and skull. Adult male. Collected 29 Jul 1895 by E. W. Nelson and E. A. Goldman. Original number 8246.

Type Locality: Santa Efigenia, a hacienda about 8 mi (13 km) northwest of Tapanatepec, altitude 1,200 ft (366 m), south-eastern Oaxaca, Mexico.

Nasua narica molaris Merriam

Proc. Biol. Soc. Wash. 15: 68, 22 Mar 1902e.

Holotype: USNM 32630/44553. Skin and skull. Adult male. Collected 7 Feb 1892 by E. W. Nelson and E. A. Goldman. Original number [FC: EWN] 1844.

Type Locality: Manzanillo, [FC: altitude 50 ft (15 m)], Colima, Mexico.

Nasua narica richmondi Goldman

J. Wash. Acad. Sci. 22: 312, 4 Jun 1932c.

= *Nasua narica narica* (Linnaeus, 1766). See Hershkovitz (1951:559).

Holotype: USNM 51331. [Skin and skull]. Adult male. Collected 19 Nov 1892 by C. W. Richmond. Original number 158.

Type Locality: Escondido River, 50 mi (80 km) above Bluefields, [Atlantico Sur], Nicaragua.

Nasua narica tamaulipensis Goldman

Proc. Biol. Soc. Wash. 55: 80, 25 Jun 1942.

= *Nasua narica molaris* Merriam, 1902. See Hall and Kelson (1959:892).

Holotype: USNM 116754. Skin and skull. Young male. Collected 28 Mar 1902 by E. W. Nelson and E. A. Goldman. Original number 15038, not 14974 as given in original description.

Type Locality: Cerro de la Silla, altitude 2,600 ft (792 m), near Monterrey, Nuevo Leon, Mexico.

Nasua nelsoni Merriam

Proc. Biol. Soc. Wash. 14: 100, 19 Jul 1901b.

= *Nasua narica nelsoni* Merriam, 1901. See Decker (1991:380).

Holotype: USNM 108520. [Skin, skull, and baculum]. Old male. Collected 8 Apr 1901 by E. W. Nelson and E. A. Goldman. Original number 14673.

Type Locality: Cozumel Island (Isla Cozumel), Yucatan (Quintana Roo), [Mexico].

Genus *Potos* Geoffroy Saint-Hilaire and G. Cuvier, 1795

Potos flavus arborensis Goodwin

Am. Mus. Novit. 987: 1, 13 May 1938.

= *Potos flavus chiriquensis* J. A. Allen, 1904. See Kortlucke (1973:28).

Holotype: USNM 250320. Skin and skull. Adult female. Collected 4 Jun 1931 by C. F. Underwood. Original number [SL: 513. X-Catalog number 26850-X].

Type Locality: El Sauce Peralta, a farm on the Atlantic Railroad less than halfway from San Jose to Limon, altitude about 1,000 ft (305 m), [Cartago], Costa Rica.

Potos flavus campechensis Nelson and Goldman

J. Wash. Acad. Sci. 21: 482, 19 Nov 1931c.

= *Potos flavus chiriquensis* J. A. Allen, 1904. See Kortlucke (1973:28).

Holotype: USNM 181266. [Skin and skull]. Adult female. Collected 12 Feb 1913 by P. W. Shufeldt. [SL: Original number 62]. X-Catalog number 10234-X.

Type Locality: La Tuxpena, Champoton, Campeche, Mexico.

Potos flavus guerrensis Goldman

Proc. Biol. Soc. Wash. 28: 133, 29 Jun 1915.

= *Potos flavus nocturnus* Wied-Neuwied, 1826. See Wozencraft (2005:627).

Holotype: USNM 74683. [Skin and skull]. Adult male. Collected 15 Feb 1895 by E. W. Nelson and E. A. Goldman. Original number 7464.

Type Locality: Near Ometepec, [FC: altitude 200 ft (61 m)], Guerrero, Mexico.

Potos flavus isthmicus Goldman

Smithson. Misc. Collect. 60(22): 14, 28 Feb 1913.

= *Potos flavus megalotis* (Marten, 1836). See Cabrera (1958:251).

Holotype: USNM 179042. [Skin and skull]. Adult female. Collected 21 Apr 1912 by E. A. Goldman. Original number 21631.

Type Locality: Near head of Rio Limon, altitude 5,200 ft (1,585 m), Mount Pirri (Cerro Pirre), [Darien], eastern Panama.

Genus *Procyon* Storr, 1780

Euprocyon cancrivorus panamensis Goldman

Smithson. Misc. Collect. 60(22): 15, 28 Feb 1913.

= *Procyon cancrivorus panamensis* (Goldman, 1913). See Goldman (1920:152).

Holotype: USNM 171669. [Skin and skull]. Adult female. Collected 21 Jun 1911 by E. A. Goldman. Original number [FC: Nelson and Goldman] 21174.

Type Locality: Gatun, Canal Zone (Colon), Panama.

Procyon hernandezii Wagler

Isis 24: 514, 1831.

= *Procyon lotor hernandezii* Wagler, 1831. See J. A. Allen (1890:176).

Neotype as designated by Helgen and Wilson (2005:226): USNM 51151. Skin and skull. Adult male. Collected 14 Dec 1892 by E. W. Nelson. Original number 4034.

Type Locality: Tlalpan, [FC: altitude 7,600 ft (2,317 m)], Distrito Federal, Mexico.

***Procyon hernandezii* var. *mexicana* Baird**

Mammals Rep. Explor. Surv. 8(1): 215, 1857.

= *Procyon lotor hernandezii* Wagler, 1831. See Helgen and Wilson (2005:223).

Holotype: USNM 1051/2018. Skin [which cannot be found and skull]. Age and sex not given. Collected [Baird (1859:24): Apr 1855] by Dr. [C. B. R.] Kennerly. No original number.

Type Locality: Espia, Sonora, [Mexico].

Remarks: The original description was based on a skin that was not designated by number. The numbers for both skin and its corresponding skull were given in Baird (1859:24). The skin still cannot be found.

***Procyon insularis vicinus* Nelson and Goldman**

Proc. Biol. Soc. Wash. 44: 20, 21 Feb 1931d.

= *Procyon lotor insularis* Merriam, 1898. See Helgen and Wilson (2005:228).

Holotype: USNM 88982. [Skin and skull]. Adult male. Collected 27 May 1897 by [E. W.] Nelson and [E. A.] Goldman. Original number 11064.

Type Locality: Maria Magdalena Island (Isla Maria Magdalena), altitude 250 ft (76 m), Tres Marias Islands, off coast of the state of Nayarit, western Mexico.

***Procyon lotor auspicatus* Nelson**

Smithson. Misc. Collect. 82(8): 9, 10 Jul 1930.

Holotype: USNM 255080. [Skin and skull]. Adult male. Collected 28 Mar 1930 by E. W. Nelson. Original number [SL: 65].

Type Locality: Marathon, Key Vaca, [Monroe County], Florida.

***Procyon lotor californicus* Mearns**

Proc. Biol. Soc. Wash. 27: 66, 20 Mar 1914.

= *Procyon lotor psora* Gray, 1842. See Goldman (1950:56).

Holotype: USNM 60675. [Skin and skull]. Adult female. Collected 16 Jul 1894 by F. X. Holzner. Original number 1605.

Type Locality: On the ocean beach near last Mexican Boundary monument, No. 258, San Diego County, in the southwestern corner of California.

***Procyon lotor crassidens* Hollister**

Proc. Biol. Soc. Wash. 27: 142, 10 Jul 1914b.

= *Procyon lotor hernandezii* Wagler, 1831. See Helgen and Wilson (2005:223).

Holotype: USNM 12191/14191. Skin and skull. Adult male. Collected on unknown date by W. M. Gabb. Original number 14. [MC: Cataloged 19 Nov 1874].

Type Locality: Talamanca, [Limon], Costa Rica.

***Procyon lotor excelsus* Nelson and Goldman**

J. Mammal. 11: 458, 11 Nov 1930a.

Holotype: USNM 236214. Skin and skull. Old adult male. Collected 15 Apr 1920 by J. W. Fisk. [SL: Original number 797. 22424-X].

Type Locality: Owyhee River, [Malheur County], Oregon, 10 mi (16 km) west of Fairylawn, Owyhee County, Idaho.

***Procyon lotor fuscipes* Mearns**

Proc. Biol. Soc. Wash. 27: 63, 20 Mar 1914.

Holotype: USNM 63055. [Skin and skull]. Adult male. Collected 6 Feb 1893 by E. A. Mearns. Original number [FC: Mearns and Holzner] 2273.

Type Locality: Las Moras Creek at Fort Clark, altitude 308 m or 1,011 ft, Kinney County, Texas.

***Procyon lotor grinnelli* Nelson and Goldman**

J. Wash. Acad. Sci. 20: 82, 4 Mar 1930b.

Holotype: USNM 147181. [Skin and skull]. Adult male. Collected 15 Feb 1906 by [E. W.] Nelson and [E. A.] Goldman. Original number 19139.

Type Locality: La Paz, Lower California (Baja California Sur), Mexico.

***Procyon lotor hirtus* Nelson and Goldman**

J. Mammal. 11: 455, 11 Nov 1930a.

Holotype: USNM 187926. [Skin and skull]. Adult male. Collected 4 Mar 1886 by V. Bailey. Original number 161. Merriam collection number [SL: 2566/3176].

Type Locality: Elk River, Sherburne County, Minnesota.

***Procyon lotor incautus* Nelson**

Smithson. Misc. Collect. 82(8): 10, 10 Jul 1930.

Holotype: USNM 255060. [Skin and skull]. Adult male. Collected 24 Mar 1930 by E. W. Nelson. Original number [MC: 53].

Type Locality: Torch Key, Big Pine Key Group, [Monroe County], Florida.

***Procyon lotor inseperatus* Nelson**

Smithson. Misc. Collect. 82(8): 8, 10 Jul 1930.

Holotype: USNM 255037. [Skin and skull]. Adult male. Collected 19 Mar 1930 by E. W. Nelson. Original number [MC: 31].

Type Locality: Upper Matecumbe Key, [Monroe County], Florida.

***Procyon lotor insularis* Merriam**

Proc. Biol. Soc. Wash. 12: 17, 27 Jan 1898a.

Holotype: USNM 88978. [Skin and skull]. Old male. Collected 10 May 1897 by E. W. Nelson and E. A. Goldman. Original number 10985.

Type Locality: Maria Madre Island (Isla Maria Madre), [FC: altitude 50 ft (15 m)], Tres Marias Islands, [Nayarit], Mexico.

***Procyon lotor litoreus* Nelson and Goldman**

J. Mammal. 11: 457, 11 Nov 1930a.

Holotype: USNM 2450. Skull only. Adult, probably male. Collected on unknown date by L. M. Wilson. No original number. [MC: Cataloged 8 Jul 1856], not 7 Aug 1856 as in original description.

Type Locality: Saint Simon (Simons) Island, Glyn County, Georgia.

***Procyon lotor marinus* Nelson**

Smithson. Misc. Collect. 82(8): 7, 10 Jul 1930.

Holotype: USNM 254989. [Skin and skull]. Adult male. Collected 28 Feb 1930 by E. W. Nelson. Original number [SL: 1].

Type Locality: Near Chokoloskee, [MC: west Chokoloskee Bay], [Collier County], Florida.

***Procyon lotor maritimus* Dozier**

J. Mammal. 29: 286, 31 Aug 1948.

Holotype: USNM 275290. Skin and skull. Adult female. Collected 3 Dec 1946 by H. L. Dozier. Original number D-98. [SL: 32605-X].

Type Locality: Blackwater National Wildlife Refuge, Dorchester County, Maryland.

Remarks: Wozencraft (2005:627) placed *maritimus* as a synonym of *marinus* in what must have been a lapsus. Paradiso (1969:143) and Lotze and Anderson (1979:1) placed it in *P. l. lotor*. We follow the more recent work by Hall (1981:970), who recognized *maritimus* as a valid subspecies of *P. lotor*.

***Procyon lotor ochraceus* Mearns**

Proc. Biol. Soc. Wash. 27: 64, 20 Mar 1914.

= *Procyon lotor pallidus* Merriam, 1900. See Goldman (1950:54).

Holotype: USNM 59900. Skin and skull. Subadult male. Collected 7 Feb 1894 by E. A. Mearns. Original number [FC: Mearns and Holzner] 2937.

Type Locality: Sonoyta River, near Quitobaquita (Quitovaquita) at monument No. 172, 678 km (421 mi) west of the Rio Grande and 181 km (113 mi) east of the Colorado River, altitude 360 m (1,181 ft), Sonora, Mexico.

***Procyon lotor shufeldti* Nelson and Goldman**

Proc. Biol. Soc. Wash. 44: 17, 21 Feb 1931d.

= *Procyon lotor bernandezii* Wagler, 1831. See Helgen and Wilson (2005:223).

Holotype: USNM 177546. [Skin and skull]. Adult male. Collected 20 Apr 1911 by P. W. Shufeldt. Original number [XC: 39]. X-Catalog number 8575-X.

Type Locality: La Tuxpena, Champoton, southeastern Campeche, Mexico.

***Procyon lotor solutus* Nelson and Goldman**

J. Mammal. 12: 308, 24 Aug 1931e.

= *Procyon lotor gloveralleni* Nelson and Goldman, 1930. See Wozencraft (2005:627).

Holotype: USNM 256027. Skin, skull, [and skeleton]. Adult male. Collected 10 Dec 1930 by W. L. Brown. No original number.

Type Locality: Hilton Head Island, Beaufort County, South Carolina.

***Procyon lotor vancouverensis* Nelson and Goldman**

J. Mammal. 11: 458, 11 Nov 1930a.

Holotype: USNM 135457. Skull only. Adult male. Collected Nov 1904 by C. Sheldon. No original number. X-Catalog number 5117-X.

Type Locality: Quatsino Sound, Vancouver Island, British Columbia, [Canada].

***Procyon lotor varius* Nelson and Goldman**

J. Mammal. 11: 456, 11 Nov 1930a.

= *Procyon lotor maynardi* Bangs, 1898. See Wozencraft (2005:628).

Holotype: USNM 158246. [Skin and skull]. Adult female. Collected 10 Oct 1908 by A. H. Howell. Original number 1359.

Type Locality: Castleberry, Conecuh County, Alabama.

***Procyon minor* Miller**

Proc. Biol. Soc. Wash. 24: 4, 28 Jan 1911a.

= *Procyon lotor maynardi* Bangs, 1898. See Wozencraft (2005:628).

Holotype: USNM 15481/38417. Skin and skull. Young male. Collected on unknown date by L. Guesde. Original number [SL: 5]. [MC: Skin cataloged 26 Jun 1886; skull 7 Jan 1911]. Received from the l'Herminier museum.

Type Locality: Pointe-a-Pitre, [Grande-Terre], Guadeloupe, Lesser Antilles.

***Procyon pallidus* Merriam**

Proc. Biol. Soc. Wash. 13: 151, 13 Jun 1900c.

= *Procyon lotor pallidus* Merriam, 1900. See Grinnell (1923:316).

Holotype: USNM 99272. [Skin and skull]. Adult female. Collected 16 Oct 1899 by F. Stephens. Original number [SL: 3022. 2246-X].

Type Locality: New River, Colorado Desert, [Imperial County], California.

***Procyon psora pacifica* Merriam**

N. Am. Fauna 16: 107, 28 Oct 1899.

= *Procyon lotor pacificus* Merriam, 1899. See Grinnell (1923:316).

Holotype: USNM 93137. [Skin and skull]. Adult, sex not given. Collected 15 Jan 1898 by C. Hansen. No original number. [SL: 1409-X].

Type Locality: Keechelus Lake, [Hall and Kelson (1959:888): 3,000 ft (914 m)], Cascade Mountains, [Kittitas County], Washington.

***Procyon pumilus* Miller**

Proc. Biol. Soc. Wash. 24: 3, 28 Jan 1911a.

= *Procyon lotor pumilus* Miller, 1911. See Goldman (1920:151).

Holotype: USNM 171983. Skin and skull. Young adult, [sex unknown]. Collected in [SL: 1910] by A. H. Jennings. No original number.

Type Locality: Ancon, [MC: Canal Zone], [Panama], Panama.

Procyon pygmaeus Merriam

Proc. Biol. Soc. Wash. 14: 101, 19 Jul 1901b.

Holotype: USNM 108511. [Skin, skull, and baculum]. Young adult male. Collected 14 Apr 1901 by E. W. Nelson and E. A. Goldman. Original number 14698.

Type Locality: Cozumel Island, Yucatan (Quintana Roo), [Mexico].

ORDER PERISSODACTYLA OWEN, 1848**FAMILY EQUIDAE GRAY, 1821****Genus *Equus* Linnaeus, 1758***Equus quagga cuninghamei* Heller

Smithson. Misc. Collect. 61(22): 3, 26 Jan 1914a.

= *Equus quagga boehmi* Matschie, 1892. See Groves and Bell (2004:195) for first use of current name combination and Klingel (2013a:430) for current use.

Holotype: USNM 182157. [Skin and skull]. Young adult male. Collected 23 Sep 1911 by E. Heller. Original number 2466.

Type Locality: Archer's Post, northern Guaso Nyiro (Ewaso Ng'iro) River, [Eastern Province], British East Africa (Kenya).

FAMILY TAPIRIDAE GRAY, 1821**Genus *Tapirella* Palmer, 1903***Elasmognathus bairdii* Gill

Proc. Acad. Nat. Sci. Phila. 17: 183, presented at the meeting of 10 Oct 1865a; receipt acknowledged 26 Dec 1865 by the Albany Institute.

= *Tapirella bairdii* (Gill, 1865). See Elliot (1904b:87) for first use of current name combination and Groves and Grubb (2011:19) for current use.

Lectotype as designated by Lyon and Osgood (1909:25): USNM 6019. Skull only. [Lyon and Osgood (1909:25): Adult], sex not given. Collected on unknown date by W. S. White. No original number. [MC: Cataloged 9 Apr 1863].

Type Locality: Isthmus of Panama.

Remarks: Hershkovitz (1954:490) restricted the type locality to the Canal Zone, Panama, and incorrectly cited Poole and Schantz (1942:233) for the lectotype designation when, in fact, Poole and Schantz (1942) had simply restated Lyon and Osgood (1909).

Elasmognathus dowii Gill

Am. J. Sci. Arts (ser. 2) 50:142, 1870.

= *Tapirella bairdii* (Gill, 1865). See Goodwin (1946:91) for first use of current name combination and Groves and Grubb (2011:19) for current use.

Lectotype as designated by Lyon and Osgood (1909:26): USNM 11278. Skull only. [Lyon and Osgood (1909:26): Nearly] adult, sex not given. Collected on unknown date by J. M. Dow. Original number [MC: 1. Cataloged 19 Jul 1870].

Type Locality: Guatemala.

Remarks: Hershkovitz (1954:490) restricted the type locality to the Pacific Slope of Guatemala and incorrectly cited Poole and Schantz (1942:233) for the lectotype designation when, in fact, Poole and Schantz (1942) had simply restated Lyon and Osgood (1909).

Genus *Tapirus* Brisson, 1762*Tapirus terrestris colombianus* Hershkovitz

Proc. U.S. Natl. Mus. 103:486, 18 May 1954.

Holotype: USNM 281389. Skin, skull, [and part of hyoid]. Young adult male. Collected 15 Jul 1942 by P. Hershkovitz. Original number 438.

Type Locality: El Salado, altitude 430 m, eastern slope of Sierra Nevada de Santa Marta, on road between Valencia and Pueblo Bello, [SL: Valledupar], Department of Magdalena (Cesar), Colombia.

ORDER ARTIODACTYLA OWEN, 1848**FAMILY SUIDAE GRAY, 1821****Genus *Phacochoerus* F. Cuvier, 1826***Phacochoerus africanus bufo* Heller

Smithson. Misc. Collect. 61(22): 2, 26 Jan 1914a.

= *Phacochoerus africanus massaicus* Lonnberg, 1908. See Grubb (1993:71).

Holotype: USNM 164796. Skull only. Immature female. Collected 25 Jan 1910 by E. Heller. Original number 617.

Type Locality: Rhino Camp, Lado Enclave, [Arua], Egyptian Sudan (Uganda).

Genus *Sus* Linnaeus, 1758*Sus babi* Miller

Proc. U.S. Natl. Mus. 30: 752, 13 Jun 1906c.

= *Sus scrofa* possibly *vittatus* Boie, 1828. See Grubb (2005:642). Holotype: USNM 114283. Skin, skull, [and limb bones]. Adult male.

Collected 14 Jan 1902 by W. L. Abbott. Original number 1413.

Type Locality: Pulo (Pulau) Babi, an island about halfway between Simalur (Pulau Simeulue) and Pulo (Pulau) Bangkuru, [FC: 17 mi (27 km) southeast of Simalur Island (Pulau Simeulue)], the outermost of the Banjak group (Kepulauan Banyak), [Aceh, Sumatra, Indonesia].

Sus babi enganus Lyon

Proc. U.S. Natl. Mus. 52: 454, 30 Dec 1916.

= *Sus scrofa* possibly *vittatus* Boie, 1828. See Grubb (2005:642). Holotype: USNM 140959. Skull only. Very old female. Collected 30 Nov 1904 by W. L. Abbott. Original number 3814.

Type Locality: Engano Island (Pulau Enggano), [Bengkulu, Sumatra, Indonesia].

***Sus babi tuancus* Lyon**

Proc. U.S. Natl. Mus. 52: 453, 30 Dec 1916.
 = *Sus scrofa* possibly *vittatus* Boie, 1828. See Grubb (2005:642).
 Holotype: USNM 114415. Skin, skull, [and limb bones]. Adult female. Collected 30 Jan 1902 by W. L. Abbott. Original number 1493, not 1412 as given in original description.
 Type Locality: Tuanku Island (Pulau Tuangku), [FC: Banjak Islands (Kepulauan Banyak)], [Aceh, Sumatra, Indonesia].

***Sus jubatulus* Miller**

Proc. U.S. Natl. Mus. 30: 746, 13 Jun 1906c.
 = *Sus scrofa vittatus* Boie, 1828. See Groves (1981:40).
 Holotype: USNM 123918. Skin, skull, [and limb bones]. Adult male. Collected 11 Nov 1903 by W. L. Abbott. Original number 2859.
 Type Locality: Pulo Terutau or Trotto (Ko Tarutao), off west coast of Malay Peninsula, [Satun, Thailand].

***Sus jubatus* Miller**

Proc. U.S. Natl. Mus. 30: 745, 13 Jun 1906c.
 = *Sus scrofa cristatus* Wagner, 1839. See Groves (1981:38).
 Holotype: USNM 83518. Skin, skull, [and limb bones]. Adult male. Collected in 1896 by W. L. Abbott. Original number [metal tag on skull: B].
 Type Locality: [FC: Lay Song Hong], Trong (Trang), Lower Siam (Thailand).

***Sus mimus* Miller**

Proc. U.S. Natl. Mus. 30: 753, 13 Jun 1906c.
 = *Sus celebensis celebensis* Muller and Schlegel, 1843. See Grubb (2005:641).
 Holotype: USNM 114178. Skin, skull, [and limb bones]. Adult male. Collected 25 Nov 1901 by W. L. Abbott. Original number 1353.
 Type Locality: Simalur Island (Pulau Simeulue), sometimes known as Pulo (Pulau) Babi, [Aceh], west Sumatra, [Indonesia].

***Sus natunensis* Miller**

Proc. Wash. Acad. Sci. 3: 117, 26 Mar 1901a.
 = *Sus scrofa* possibly *vittatus* Boie, 1828. See Grubb (2005:642).
 Holotype: USNM 104856. Skin, skull, [and limb bones]. Adult female. Collected 9 Aug 1900 by [MC: W. L. Abbott]. Original number 609.
 Type Locality: Pulo (Pulau) Laut, North Natuna Islands (Kepulauan Natuna Besar), South China Sea, between Malay Peninsula and Borneo, [Kepulauan Riau, Indonesia].

***Sus niadensis* Miller**

Proc. U.S. Natl. Mus. 30: 751, 13 Jun 1906c.
 = *Sus celebensis celebensis* Muller and Schlegel, 1843. See Grubb (2005:641).
 Holotype: USNM 141167. Skin and skull. Adult female. Collected 30 Mar 1905 by W. L. Abbott. Original number 4155.

Type Locality: [SL: Lafau], Nias Island (Pulau Nias), [Sumatera Utara, Sumatra, Indonesia].

***Sus nicobaricus* Miller**

Proc. U.S. Natl. Mus. 24: 755, 9 May 1902b.
 = *Sus scrofa* possibly *vittatus* Boie, 1828. See Grubb (2005:642).
 Holotype: USNM 111794. Skin, skull, [and limb bones]. Young adult male. Collected 13 Mar 1901 by W. L. Abbott. Original number 930.
 Type Locality: [SL: Ganges Harbor], Great Nicobar Island, Nicobars, Malay Archipelago [Andaman and Nicobar Islands, India].

***Sus oi* Miller**

Proc. Biol. Soc. Wash. 15: 51, 5 Mar 1902c.
 = *Sus barbatus oi* Miller, 1902. See Groves (1981:50).
 Holotype: USNM 113150. Skin, skull, [and limb bones]. Adult male. Collected 20 Sep 1901 by W. L. Abbott. Original number 1319.
 Type Locality: Banks of the Indragiri River (Sungai Indragiri), about 30 mi (48 km) above the mouth, [Riau], eastern Sumatra, [Indonesia].

***Sus peninsularis* Miller**

Proc. U.S. Natl. Mus. 30: 749, 13 Jun 1906c.
 = *Sus scrofa vittatus* Boie, 1828. See Groves (1981:40).
 Holotype: USNM 142470. Skull only. Adult female. Collected in [MC and Accession Record 45499: 1905] by C. B. Kloss. No original number.
 Type Locality: Near foot of Gunung (Gunung) Pulai, southwestern Johore (Johor), [Malaysia].

***Sus rhionis* Miller**

Proc. U.S. Natl. Mus. 30: 749, 13 Jun 1906c.
 = *Sus scrofa vittatus* Boie, 1828. See Groves (1981:40).
 Holotype: USNM 122928. Skin, skull, [and limb bones]. Young adult male. Collected 26 Jun 1903 by W. L. Abbott. Original number 2555.
 Type Locality: Pulo (Pulau) Ungar, Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau], [SL: E Sumatra], [Indonesia].

FAMILY TAYASSUIDAE PALMER, 1897**Genus *Dicotyles* G. Cuvier, 1817**

We follow Ramirez-Pulido et al. (2014) in using *Dicotyles* rather than *Pecari* for this genus.

***Dicotyles angulatus sonoriensis* Mearns**

Proc. U.S. Natl. Mus. 20: 3, 11 Feb 1897c. Preprint of Proc. U.S. Natl. Mus. 20: 469, 24 Dec. 1897d.
 See Ramirez-Pulido et al. (2014:45) for current use.
 Holotype: USNM 20657/35814. Skin and skull. Adult male. Collected 8 Sep 1892 by E. A. Mearns and F. X. Holzner. Original number 2099.

Type Locality: [SL: San Bernardino Ranch], San Bernardino River, near monument No. 77, Mexican boundary line, Sonora, Mexico.

***Pecari angulatus bangsi* Goldman**

Proc. Biol. Soc. Wash. 30: 109, 23 May 1917.

= *Dicotyles crassus bangsi* (Goldman, 1917). First use of current name combination. Groves and Grubb (2011:49) placed *P. angulatus bangsi* in *P. crassus*. Grubb (2005:644) recognized *bangsi* as a valid subspecies of *P. tajacu*.

Holotype: USNM 179976. [Skin and skull]. Male, age not given. Collected 19 Jun 1912 by E. A. Goldman. Original number 21790.

Type Locality: Boca de Cupe, altitude 250 ft (76 m), [Darien], eastern Panama.

***Pecari angulatus nelsoni* Goldman**

Proc. Biol. Soc. Wash. 39: 48, 30 Jul 1926.

= *Dicotyles crassus nelsoni* (Goldman, 1926). See Ramirez-Pulido et al. (2014:45).

Holotype: USNM 77865. Skin and skull. Adult male. Collected 24 Feb 1896 by E. W. Nelson and E. A. Goldman. Original number 9381.

Type Locality: Huehuetan, altitude 500 ft (152 m), Chiapas, Mexico.

***Pecari angulatus nigrescens* Goldman**

Proc. Biol. Soc. Wash. 39: 49, 30 Jul 1926.

= *Dicotyles crassus nigrescens* (Goldman, 1926). First use of current name combination. Groves and Grubb (2011:50) placed *P. angulatus nigrescens* in *P. crassus*. Grubb (2005:644) recognized *nigrescens* as a valid subspecies of *P. tajacu*.

Holotype: USNM 148735. Skin and skull. Adult female. Collected 10 Mar 1901 by H. S. Reed. Original number [XC: 21]. X-Catalogue number 6416[-X].

Type Locality: Chamelecon, [Cortes], Honduras.

***Tayassu angulatus crassus* Merriam**

Proc. Biol. Soc. Wash. 14: 124, 19 Jul 1901c.

= *Dicotyles crassus crassus* (Merriam, 1901). See Ramirez-Pulido et al. (2014:45).

Holotype: USNM 92960. [Skin and skull]. Young adult male. Collected 1 Feb 1898 by E. W. Nelson and E. A. Goldman. Original number 12127.

Type Locality: [FC: Near] Metlaltoyuca, [FC: altitude about 800 ft (244 m)], Puebla, [SL: Mexico].

***Tayassu angulatus humeralis* Merriam**

Proc. Biol. Soc. Wash. 14: 122, 19 Jul 1901c.

= *Dicotyles angulatus humeralis* (Merriam, 1901). See Ramirez-Pulido et al. (2014:45).

Holotype: USNM 33238/45243. Skin and skull. Adult male, not female as given in original description. Collected 26 Feb 1892 by E. W. Nelson and E. A. Goldman. Original number [FC: EWN] 1947.

Type Locality: Armeria, [FC: altitude sea level up to 200 ft (61 m)], Colima, Mexico.

***Tayassu angulatus yucatanensis* Merriam**

Proc. Biol. Soc. Wash. 14: 123, 19 Jul 1901c.

= *Dicotyles crassus yucatanensis* (Merriam, 1901). See Ramirez-Pulido et al. (2014:45).

Holotype: USNM 108282. [Skin and skull]. Young adult male. Collected 12 Feb 1901 by E. W. Nelson and E. A. Goldman. Original number 14534.

Type Locality: Tunkas, Yucatan, [SL: Mexico].

***Tayassu nanus* Merriam**

Proc. Biol. Soc. Wash. 14: 102, 19 Jul 1901b.

= *Dicotyles crassus nanus* (Merriam, 1901). See Ramirez-Pulido et al. (2014:45).

Holotype: USNM 108516. [Skin and skull]. Adult male. Collected 7 Apr 1901 by E. W. Nelson and E. A. Goldman. Original number 14664.

Type Locality: Cozumel Island, Yucatan (Quintana Roo), [Mexico].

Genus *Tayassu* Fischer, 1814

***Tayassu albirostris ringens* Merriam**

Proc. Biol. Soc. Wash. 14: 121, 19 Jul 1901c.

= *Tayassu pecari ringens* Merriam, 1901. See J. A. Allen (1902b:166).

Holotype: USNM 108279. [Skin and skull]. Adult female. Collected 1 Jan 1901 by E. W. Nelson and E. A. Goldman. Original number 14383.

Type Locality: Apazote, near Yohaltun, Campeche, [SL: Mexico].

***Tayassu albirostris spiradens* Goldman**

Proc. Biol. Soc. Wash. 25: 189, 24 Dec 1912c.

= *Tayassu pecari spiradens* Goldman, 1912. See Goldman (1920:74).

Holotype: USNM 12085/14095. Skin and skull. Adult, sex not given. Collected in 1874 by W. M. Gabb. Original number [MC: 24].

Type Locality: Talamanca, [Limon], Costa Rica.

FAMILY HIPPOPOTAMIDAE GRAY, 1821

Genus *Hippopotamus* Linnaeus, 1758

***Hippopotamus amphibius kiboko* Heller**

Smithson. Misc. Collect. 61(22): 1, 26 Jan 1914a.

Holotype: USNM 162979. [Skin, skull, and skeleton]. Adult male. Collected 20 Jul 1909 by T. Roosevelt. Original number E. Heller 280.

Type Locality: [FC: Allenborough's], Lake Naivasha, [Rift Valley], British East Africa (Kenya).

***Hippopotamus constrictus* Miller**

Smithson. Misc. Collect. 54(7): 1, 28 Mar 1910b.

= *Hippopotamus amphibius constrictus* Miller, 1910. See Klingel (2013b:7) for current use.

Holotype: USNM 34787. Skull only. Immature male. Collected on unknown date by H. Chatelain. No original number. [MC: Cataloged 13 Aug 1890].

Type Locality: Angola, Africa.

FAMILY TRAGULIDAE MILNE-EDWARDS, 1864

Genus *Tragulus* Brisson, 1762

Tragulus amoenus Miller

Proc. U.S. Natl. Mus. 26: 439, 3 Feb 1903b.

= *Tragulus napu amoenus* Miller, 1903. See Meijaard and Groves (2004:90).

Holotype: USNM 114563. Skin and skull. Adult male. Collected 8 Mar 1902 by W. L. Abbott. Original number 1632.

Type Locality: Pulo Mansalar (Pulau Musala), off Tapanuli Bay (Teluk Tapanuli), [Sumatera Utara], Sumatra, [Indonesia].

Tragulus bancanus Lyon

Proc. U.S. Natl. Mus. 31: 576, 18 Dec 1906.

= *Tragulus napu napu* (F. Cuvier, 1822). See Groves and Grubb (2011:56) for current use.

Holotype: USNM 124714. Skin and skull. Adult female. Collected 31 May 1904 by W. L. Abbott. Original number 3283.

Type Locality: Tanjong Tedong, Island of Banka (Pulau Bangka), [Kepulauan Bangka Belitung], east of Sumatra, [Indonesia].

Tragulus batuanus Miller

Smithson. Misc. Collect. 45: 2, 6 Nov 1903a.

= *Tragulus napu batuanus* Miller, 1903. See Grubb (2005:650).

Holotype: USNM 121695, not 121697 as in original description. Skin and skull. Adult female. Collected 5 Feb 1903 by W. L. Abbott. Original number 2226.

Type Locality: Tana Bala (Pulau Tanahbala), Batu Islands (Kepulauan Batu), [Sumatera Utara], Sumatra, [Indonesia].

Tragulus billitonus Lyon

Proc. U.S. Natl. Mus. 31: 578, 18 Dec 1906.

= *Tragulus napu billitonus* Lyon, 1906. See Grubb (2005:650).

Holotype: USNM 124929. Skin and skull. Adult male. Collected 20 Jul 1904 by W. L. Abbott. Original number 3524.

Type Locality: Tanjong Batu, Billiton Island (Pulau Belitung), [Kepulauan Bangka Belitung], east of Sumatra, [Indonesia].

Tragulus borneanus Miller

Proc. Biol. Soc. Wash. 15: 174, 6 Aug 1902d.

= *Tragulus napu napu* (F. Cuvier, 1822). See Meijaard and Groves (2004:86).

Holotype: USNM 19205/34924. [Skin and] skull. Adult male. Collected [MC: 18 Jan 1888] by F. C. Adams. Original number [MC: K I 154].

Type Locality: [Lyon and Osgood (1909:17): Banks of] Suanlamba River (Sungai Suanlamba), British North Borneo (Sabah), [Borneo, Malaysia].

Remarks: The description of this taxon was based solely on the skull. According to Lyon and Osgood (1909:17), the skin could not be found as it was mounted and in storage; it was made into a study skin in Apr 1907 and is now in the collection.

Tragulus brevipes Miller

Proc. U.S. Natl. Mus. 26: 443, 3 Feb 1903b.

= *Tragulus kanchil brevipes* Miller, 1903. See Trouessart (1904:689).

Holotype: USNM 114326. Skin and skull. Adult female. Collected 20 Jan 1902 by W. L. Abbott. Original number 1443.

Type Locality: Pulo (Pulau) Bangkaru, Banjak Islands (Kepulauan Banyak), [Aceh, Sumatra, Indonesia].

Tragulus bunguranensis Miller

Proc. Wash. Acad. Sci. 3: 113, 26 Mar 1901a.

= *Tragulus napu bunguranensis* Miller, 1901. See Meijaard and Groves (2004:87).

Holotype: USNM 104604. Skin and skull. Adult male. Collected 9 Jul 1900 by [MC: W. L. Abbott]. Original number 547.

Type Locality: Bunguran Island (Pulau Natuna Besar), North Natunas (Kepulauan Natuna Besar), [Kepulauan Riau, Indonesia].

Tragulus canescens Miller

Proc. Biol. Soc. Wash. 13: 185, 21 Dec 1900a.

= *Tragulus napu napu* (F. Cuvier, 1822). See Ellerman and Morrison-Scott (1951:351).

Holotype: USNM 83509. Skin and skull. Adult female. Collected 7 Sep 1896 by W. L. Abbott. No original number.

Type Locality: [MC: Lay Song Hong], [Lyon and Osgood (1909:18): Tyching], Trong (Trang), Siam (Thailand).

Tragulus carimatae Miller

Proc. U.S. Natl. Mus. 31: 55, 23 Jul 1906d.

= *Tragulus kanchil carimatae* Miller, 1906. See Lydekker (1915:284).

Holotype: USNM 125062. Skin and skull. Young adult female. Collected 25 Aug 1904 by W. L. Abbott. Original number 3651.

Type Locality: Telok Pai, Karimata Island (Pulau Karimata), [Kalimantan Barat, Borneo (Kalimantan), Indonesia].

Tragulus flavicollis Miller

Proc. Biol. Soc. Wash. 16: 33, 19 Mar 1903c.

= *Tragulus napu flavicollis* Miller, 1903. See Grubb (2005:650).

Holotype: USNM 115505. Skin and skull. Immature female. Collected 24 Aug 1902 by W. L. Abbott. Original number 1957.

Type Locality: Pulo (Pulau) Sugi, Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Tragulus focalinus Miller

Proc. Biol. Soc. Wash. 16: 35, 19 Mar 1903c.

= *Tragulus javanicus* (Osbeck, 1765). See Meijaard and Groves (2004:92).

Holotype: USNM 120574. Skin and skull. Adult female. Collected in Oct or Nov 1902, collector unknown. Received from B. S. Rairden, U.S. Consul at Batavia.

Type Locality: Near Buitenzorg (Bogor), [Jawa Barat], Java, [Indonesia].

Tragulus formosus Miller

Proc. Biol. Soc. Wash. 16: 34, 19 Mar 1903c.

= *Tragulus napu rufulus* Miller, 1900. See Meijaard and Groves (2004:88).

Holotype: USNM 115511. Skin and skull. Adult male. Collected 19 Aug 1902 by W. L. Abbott. Original number 1907.

Type Locality: [FC: Telok (Teluk) Pemudang], Pulo Bintang (Pulau Bintan), Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Tragulus fulvicollis Lyon

Proc. U.S. Natl. Mus. 34: 630, 14 Sep 1908.

= *Tragulus kanchil fulvicollis* Lyon, 1908. See Lydekker (1915:284).

Holotype: USNM 143519. Skin and skull. Adult female. Collected 27 Mar 1906 by W. L. Abbott. Original number 4765.

Type Locality: Pulo (Pulau) Bengkalis, [Riau], off east coast of Sumatra, [Indonesia].

Tragulus jugularis Miller

Proc. U.S. Natl. Mus. 26: 440, 3 Feb 1903b.

= *Tragulus napu amoenus* Miller, 1903. See Meijaard and Groves (2004:90).

Holotype: USNM 114574. Skin and skull. Adult male. Collected 8 Mar 1902 by W. L. Abbott. Original number 1627.

Type Locality: Pulo Mansalar (Pulau Musala), off Tapanuli Bay (Teluk Tapanuli), [Sumatera Utara], [SL: west coast of] Sumatra, [Indonesia].

Tragulus kanchil longipes Lyon

Proc. U.S. Natl. Mus. 34: 628, 14 Sep 1908.

Holotype: USNM 144141. Skin and skull. Adult male. Collected 3 Nov 1906 by W. L. Abbott. Original number 4853.

Type Locality: Little Siak River (Sungai Siak Kecil), [Riau], eastern Sumatra, [Indonesia].

Tragulus lampensis Miller

Proc. Biol. Soc. Wash. 16: 42, 19 Mar 1903c.

= *Tragulus kanchil lampensis* Miller, 1903. See Trouessart (1904:690).

Holotype: USNM 104429. Skin and skull. Adult female. Collected 4 Feb 1900 by W. L. Abbott. Original number 299.

Type Locality: Pulo Lampee or Sullivans (Lampi) Island, Mergui Archipelago, [Tanintharyi, Burma].

Tragulus lancavensis Miller

Proc. Biol. Soc. Wash. 16: 41, 19 Mar 1903c.

= *Tragulus kanchil ravus* Miller, 1902. See Groves and Grubb (2011:58) for current use.

Holotype: USNM 104412. Skin and skull. Adult female. Collected 7 Dec 1899 by W. L. Abbott. Original number 132.

Type Locality: Pulo (Pulau) Langkawi, off west coast of Malay Peninsula, about 75 mi (121 km) north of Penang (George Town), [Kedah, Malaysia].

Tragulus luteicollis Lyon

Proc. U.S. Natl. Mus. 31: 579, 18 Dec 1906.

= *Tragulus kanchil luteicollis* Lyon, 1906. See Lydekker (1915:282).

Holotype: USNM 124733. Skin and skull. Adult male. Collected 12 Jun 1904 by W. L. Abbott. Original number 3311.

Type Locality: Tanjong Bedaan, island of Banka (Pulau Bangka), [Kepulauan Bangka Belitung], east of Sumatra, [Indonesia].

Tragulus lutescens Miller

Proc. Biol. Soc. Wash. 16: 32, 19 Mar 1903c.

= *Tragulus napu lutescens* Miller, 1903. See Grubb (2005:650).

Holotype: USNM 115507. Skin and skull. Adult male. Collected 2 Sep 1902 by W. L. Abbott. Original number 2011.

Type Locality: Pulo Sugi Bawa (Pulau Sugibawah), Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

Tragulus napu niasis Lyon

Proc. U.S. Natl. Mus. 52: 455, 30 Dec 1916.

Holotype: USNM 141171. Skin and skull. Adult male. Collected 4 Mar 1905 by W. L. Abbott. Original number 3979.

Type Locality: Kwala Mojeia, Nias Island (Pulau Nias), [Sumatera Utara, Sumatra, Indonesia].

Tragulus natunae Miller

Proc. Biol. Soc. Wash. 16: 38, 19 Mar 1903c.

= *Tragulus kanchil everetti* Bonhote, 1903. See Lydekker (1915:291).

Holotype: USNM 104614. Skin and skull. Adult female. Collected 9 Jul 1900 by W. L. Abbott. Original number 555.

Type Locality: Bunguran Island (Pulau Natuna Besar), North Natunas (Kepulauan Natuna Besar), [Kepulauan Riau, Indonesia].

Tragulus nigricollis Miller

Proc. Acad. Nat. Sci. Phila. 54: 145, 11 Jun 1902a.

= *Tragulus napu nigricollis* Miller, 1902. See Grubb (2005:650).

Holotype: USNM 113121. Skin and skull. Adult male. Collected 6 Sep 1901 by W. L. Abbott. Original number 1292.

Type Locality: [FC: Sakana Bay], Sinkep Island (Pulau Singkep), South China Sea, [Kepulauan Riau, Sumatra, Indonesia].

Tragulus nigrocinctus Miller

Proc. U.S. Natl. Mus. 31: 250, 11 Sep 1906a.

= *Tragulus napu nigrocinctus* Miller, 1906. See Grubb (2005:650).
Holotype: USNM 122863. Skin and skull. Adult male. Collected 21 Jun 1903 by W. L. Abbott. Original number 2531.
Type Locality: Pulo (Pulau) Kundur, Rhio-Linga Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

***Tragulus pallidus* Miller**

Proc. Wash. Acad. Sci. 3: 116, 26 Mar 1901a.
= *Tragulus kanchil pallidus* Miller, 1901. See Bonhote (1903:296).
Holotype: USNM 104616. Skin and skull. Adult female. Collected 11 Aug 1900 by [SL: W. L. Abbott]. Original number 625.
Type Locality: Pulo (Pulau) Laut, North Natuna Islands (Kepulauan Natuna Besar), [Kepulauan Riau, Indonesia].

***Tragulus perflavus* Miller**

Proc. U.S. Natl. Mus. 31: 251, 11 Sep 1906a.
= *Tragulus napu rufulus* Miller, 1900. See Meijaard and Groves (2004:87).
Holotype: USNM 142125. Skin and skull. Adult female. Collected 21 Sep 1905 by C. B. Kloss. Original number 28.
Type Locality: Semimba Bay (Teluk Senimba), Batam Island (Pulau Batam), [Kepulauan Riau, Sumatra, Indonesia].

***Tragulus pinius* Lyon**

Proc. U.S. Natl. Mus. 52: 455, 30 Dec 1916.
= *Tragulus kanchil pinius* Lyon, 1916. See Chasen (1940:200).
Holotype: USNM 121837. Skin and skull. Subadult male. Collected 3 Mar 1903 by W. L. Abbott. Original number 2362.
Type Locality: Pulo Pinie (Pulau Pini), [SL: Batu Islands (Kepulauan Batu)], [Sumatera Utara, Sumatra, Indonesia].

***Tragulus pretiellus* Miller**

Proc. U.S. Natl. Mus. 31: 253, 11 Sep 1906a.
= *Tragulus napu pretiellus* Miller, 1906. See Grubb (2005:650).
Holotype: USNM 122994. Skin and skull. Adult male. Collected 18 Jul 1903 by W. L. Abbott. Original number 2643.
Type Locality: Pulo Bakong (Pulau Bakung Besar), Rhio Archipelago (Kepulauan Lingga), [Kepulauan Riau, Sumatra, Indonesia].

***Tragulus pretiellus parallelus* Miller**

Proc. Biol. Soc. Wash. 24: 165, 16 Jun 1911b.
= *Tragulus napu parallelus* Miller, 1911. See Grubb (2005:650).
Holotype: USNM 123051. Skin and skull. Adult male. Collected 30 Jul 1903 by W. L. Abbott. Original number 2694.
Type Locality: Pulo Sebang (Pulau Sebangka), Rhio-Linga Archipelago (Kepulauan Lingga), [Kepulauan Riau, Sumatra, Indonesia].

***Tragulus pretiosus* Miller**

Proc. Acad. Nat. Sci. Phila. 54: 144, 11 Jun 1902a.
= *Tragulus napu rufulus* Miller, 1900. See Meijaard and Groves (2004:88).

Holotype: USNM 113031. Skin and skull. Adult male. Collected 27 Aug 1901 by W. L. Abbott. Original number 1238.
Type Locality: [FC: Mentuda Bay, west coast of] Linga Island (Pulau Lingga), South China Sea, [Kepulauan Riau, Sumatra, Indonesia].

***Tragulus ravulus* Miller**

Proc. Biol. Soc. Wash. 16: 41, 19 Mar 1903c.
= *Tragulus kanchil ravulus* Miller, 1903. See Trouessart (1904:689).
Holotype: USNM 104717. Skin and skull. Adult female. Collected 16 Dec 1899 by W. L. Abbott. Original number 161.
Type Locality: Pulo (Ko) Adang, Butang Islands (Batong Group), [Satun, Thailand].

***Tragulus ravus* Miller**

Proc. Biol. Soc. Wash. 15: 173, 6 Aug 1902d.
= *Tragulus kanchil ravus* Miller, 1902. See Chasen (1940:198).
Holotype: USNM 83506. Skin and skull. Immature female. Collected 6 Sep 1896 by W. L. Abbott. No original number.
Type Locality: [MC: Lay Song Hong], [Poole and Schantz (1942:36): Tyching], Trong (Trang), Lower Siam (Thailand).

***Tragulus rubeus* Miller**

Proc. Biol. Soc. Wash. 16: 40, 19 Mar 1903c.
= *Tragulus kanchil rubeus* Miller, 1903. See Trouessart (1904:690).
Holotype: USNM 115522. Skin and skull. Adult female. Collected 20 Aug 1902 by W. L. Abbott. Original number 1914.
Type Locality: [FC: Teluk Pemudong], Pulo Bintang (Pulau Bintan), Rhio Archipelago (Kepulauan Riau), [Kepulauan Riau, Sumatra, Indonesia].

***Tragulus rufulus* Miller**

Proc. Wash. Acad. Sci. 2: 227, 20 Aug 1900b.
= *Tragulus napu rufulus* Miller, 1900. See Meijaard and Groves (2004:87).
Holotype: USNM 101767. Skin and skull. Young adult male. Collected 30 Sep 1899 by [MC: W. L. Abbott]. No original number.
Type Locality: Tioman Island (Pulau Tioman), [Pahang, Malaysia].

***Tragulus russeus* Miller**

Proc. U.S. Natl. Mus. 26: 444, 3 Feb 1903b.
= *Tragulus kanchil russeus* Miller, 1903. See Trouessart (1904:689).
Holotype: USNM 114337. Skin and skull. Adult male. Collected 5, not 15 as in original description, Feb 1902 by W. L. Abbott. Original number 1518.
Type Locality: Pulo (Pulau) Tuangku, [FC: at north end near Buket Teresea], Banjak Islands (Kepulauan Banyak), [Aceh, Sumatra, Indonesia].

***Tragulus russulus* Miller**

Smithson. Misc. Collect. 45: 3, 6 Nov 1903a.

= *Tragulus kanchil russulus* Miller, 1903. See Trouessart (1904:689).

Holotype: USNM 121701. Skin and skull. Adult male. Collected 8 Feb 1903 by W. L. Abbott. Original number 2249.

Type Locality: Tana Bala (Pulau Tanahbala), Batu Islands (Kepulauan Batu), [Sumatera Utara], Sumatra, [Indonesia].

Tragulus russulus masae Lyon

Proc. U.S. Natl. Mus. 52: 456, 30 Dec 1916.

= *Tragulus kanchil masae* Lyon, 1916. See Grubb (2005:650).

Holotype: USNM 121813. Skin and skull. Adult female. Collected 18 Feb 1903 by W. L. Abbott. Original number 2306.

Type Locality: Tana Masa Island (Pulau Tanahmasa), [SL: Batu Islands (Kepulauan Batu)], [Sumatera Utara, Sumatra, Indonesia].

Tragulus sebecus Lyon

Proc. U.S. Natl. Mus. 40: 64, 25 Apr 1911.

= *Tragulus napu sebecus* Lyon, 1911. See Medway (1963:159).

Holotype: USNM 151810. Skin and skull. Adult male. Collected 4 Jan 1908 by W. L. Abbott. Original number 5736.

Type Locality: Pulo Subuku (Pulau Sebuk), [Kalimantan Selatan], off southeastern Borneo (Kalimantan), [Indonesia].

Tragulus subrufus Miller

Proc. Biol. Soc. Wash. 16: 39, 19 Mar 1903c.

= *Tragulus kanchil subrufus* Miller, 1903. See Trouessart (1904:690).

Holotype: USNM 113119. Skin and skull. Adult female. Collected 5 Sep 1901 by W. L. Abbott. Original number 1285.

Type Locality: [FC: Sakana Bay], Sinkep Island (Pulau Singkep), South China Sea, [Kepulauan Riau, Sumatra, Indonesia].

Tragulus umbrinus Miller

Proc. Biol. Soc. Wash. 13: 191, 21 Dec 1900c.

= *Tragulus napu napu* (F. Cuvier, 1822). See Grubb (2005:650).

Holotype: USNM 104414. Skin and skull. Adult male. Collected 7 Dec 1899 by [MC: W. L. Abbott]. Original number 134.

Type Locality: Pulo Lankawi (Pulau Langkawi), [Kedah, Malaysia].

Tragulus virgicollis Miller

Proc. Biol. Soc. Wash. 16: 37, 19 Mar 1903c.

= *Tragulus kanchil bosei* Bonhote, 1903. See Lydekker (1915:290).

Holotype: USNM 83941. Skin and skull. Adult male. Collected in Jun 1895 by E. and C. Hose. No original number.

Type Locality: Mount (Bukit) Dulit, altitude 3,000 ft (914 m), Sarawak, Borneo, [Malaysia].

FAMILY MOSCHIDAE GRAY, 1821

Genus *Moschus* Linnaeus, 1758

Moschus chrysogaster cupreus Grubb

Saugetierkdl. Mitt. 30: 133, 1982.

= *Moschus cupreus* Grubb, 1982. See Groves et al. (1995:192).

Holotype: USNM 63472. Skin, skull, [and partial skeleton]. [MC: Male], age not given. Collected [MC: 2 Nov 1895] by Dr. W. L. Abbott. Original number [SL: 63].

Type Locality: [MC: Bandipoor (Banidpura), altitude 8,000 ft (2,438 m)], Kashmir (Jammu and Kashmir), [India].

Remarks: The skull was on exhibition when this taxon was described. It is now in the type collection.

Moschus parvipes Hollister

Proc. Biol. Soc. Wash. 24: 1, 28 Jan 1911c.

= *Moschus moschiferus parvipes* Hollister, 1911. See Lydekker (1915:8).

Holotype: USNM 143184. Skin only. Age and sex not given. Collected in winter of 1902–1903 by W. L. Smith. No original number.

Type Locality: Mountains near [SL: below] Mok-po (Mokp'o), South Tscholla Province (Jeonnam), Korea.

FAMILY CERVIDAE GOLDFUSS, 1820

Genus *Alces* Gray, 1821

Alces americanus shirasi Nelson

Proc. Biol. Soc. Wash. 27: 72, 25 Apr 1914.

= *Alces alces shirasi* Nelson, 1914. See Peterson (1952:23) for first use of current name combination and Mattioli (2011:431) for current use.

Holotype: USNM 202973. [Skin and skull]. Adult male. Collected 11 Dec 1913 by J. Shive. No original number. [SL: 10658-X].

Type Locality: Snake River [SL: Bottoms], 4 mi (6 km) south of Yellowstone Park, Lincoln (now Teton) County, Wyoming.

Alces gigas Miller

Proc. Biol. Soc. Wash. 13: 57, 29 May 1899b.

= *Alces alces gigas* Miller, 1899. See Lydekker (1915:237) for first use of current name combination and Mattioli (2011:431) for current use.

Holotype: USNM 86166. Skin, skull, [and limb bones]. Adult male. Collected Sep 1898 by D. De Weese. Original number 16.

Type Locality: North side Tustumena Lake, Kenai Peninsula, Alaska.

Genus *Capreolus* Gray, 1821

Capreolus melanotis Miller

Proc. Biol. Soc. Wash. 24: 231, 28 Nov 1911c.

= *Capreolus pygargus* (Pallas, 1771). See Sokolov et al. (1985:93). Lorenzini et al. (2014:217) determined that subspecies should not be recognized for this taxon.

Holotype: USNM 155220. [Skin, skull, and leg bones]. Immature female. Collected 14 Aug 1909 by A. de C. Sowerby. Original number 247.

Type Locality: 30 mi (48 km) east of Ching-yang-fu (Qingyang), [SL: 4,500 ft (1,373 m)], Kansu (Gansu), China.

Genus *Cervus* Linnaeus, 1758

Controversy over the specific name for the North American elk continues to go back and forth between *C. elaphus* and *C. canadensis*; recognition of subspecies is also fluid. Groves and Grubb (2011) used *C. canadensis* without subspecies, Mattioli (2011) used *C. elaphus canadensis* for all North American elk, Kuznetsova et al. (2012) used *C. elaphus* for all elk, and Bradley et al. (2014) used *C. canadensis* for all North American elk. We follow Grubb (2005) in the use of *C. elaphus* and recognize his two subspecies.

Cervus canadensis nelsoni Bailey

Proc. Biol. Soc. Wash. 48: 188, 15 Nov 1935.

= *Cervus elaphus canadensis* Erxleben, 1777. See Grubb (2005: 663).

Holotype: USNM 124656/49722. Skin, skull, and skeleton. Adult male, 8½ years old. Collected on unknown date by [MC: J. Pitcher]. No original number. Zoo No. 671-1/4.

Type Locality: Yellowstone National Park, [SL: Wyoming].

Remarks: The National Zoological Park (NZP) accession card indicates that this specimen was born in the spring of 1896 and received by the NZP on 25 Nov 1899 and died there on 21 Sep 1904.

Cervus merriami Nelson

Bull. Am. Mus. Nat. Hist. 16: 7, 16 Jan 1902.

= *Cervus elaphus canadensis* Erxleben, 1777. See Grubb (2005:663).

Holotype: USNM 111639. [Skin and skull]. Adult male. Collected in Aug 1886 by E. W. Nelson. No original number.

Type Locality: Head of Black River, [Miller (1924:484): altitude about 9,000 ft (2,743 m), Apache County], White Mountains, Arizona.

Remarks: The skull of this specimen was missing at the time of description. Nelson used the skull of a topotype, American Museum of Natural History 16211, for his cranial characters. See either Lyon and Osgood (1909:15) or Poole and Schantz (1942:17) for additional information on the history of this specimen.

Cervus nannodes Merriam

Proc. Biol. Soc. Wash. 18: 24, 2 Feb 1905.

= *Cervus elaphus nannodes* Merriam, 1905. See Barclay (1935:798).

Holotype: USNM 135042. [Skin and skull]. Two-year-old male. Collected 12 Nov 1904 by C. H. Merriam and E. W. Nelson. Original number [SL: Nelson and Goldman 16832].

Type Locality: Buttonwillow, Kern County, California.

Cervus roosevelti Merriam

Proc. Biol. Soc. Wash. 11: 272, 17 Dec 1897e.

= *Cervus elaphus canadensis* Erxleben, 1777. See Grubb (2005:663).

Holotype: USNM 91597. [Skin and skull]. Adult male. Collected 4 Oct 1897 by H. and C. Emmet. No original number.

Type Locality: Mount Elaine, on ridge between heads of Hoh, Elwah, and Soleduc Rivers, near Mount Olympus, Olympic Mountains, [Clallam County], Washington.

Rusa nigellus Hollister

Proc. U.S. Natl. Mus. 46: 332, 31 Dec 1913c.

= *Cervus nigellus* (Hollister, 1913). See Groves and Grubb (2011:106) for current use.

Holotype: USNM 144711. Skin and skull. Adult male. Collected 30 May 1905 by E. A. Mearns. Original number 6193.

Type Locality: Mount Malindang, altitude 8,000 ft (2,438 m), [Misamis Occidental], Mindanao, [Philippines].

Genus *Mazama* Rafinesque, 1817

Mazama americana carrikeri Hershkovitz

Proc. Biol. Soc. Wash. 72: 93, 24 Jul 1959.

Holotype: USNM 282137. Skin and skull. Subadult female. Collected 26 Feb 1946 by M. A. Carriker. Original number [SL: 7932].

Type Locality: Mamancanaca, altitude between 3,600 and 3,900 m, a high valley just south of the snow peaks of the Sierra Nevada de Santa Marta, Department of Magdalena, northern Colombia.

Mazama pandora Merriam

Proc. Biol. Soc. Wash. 14: 105, 19 Jul 1901d.

Holotype: USNM 108273. [Skin and skull]. Adult male. Collected 15 Feb 1901 by E. W. Nelson and E. A. Goldman. Original number 14544.

Type Locality: Tunkas, Yucatan, [Mexico].

Mazama permira Kellogg

Proc. Biol. Soc. Wash. 59: 57, 11 Mar 1946.

= *Mazama gouazoubira permira* Kellogg, 1946. See Medellín et al. (1998:1).

Holotype: USNM 277144. Skin, skull, [and leg bones]. Adult male. Collected 24 Sep 1944 by C. F. Jones, W. N. Collins, and R. Carder. Original number 50.

Type Locality: Isla San Jose, Archipiélago de las Perlas, Golfo de Panama, [Panama], Panama.

Mazama tema cerasina Hollister

Proc. Biol. Soc. Wash. 27: 209, 31 Oct 1914c.

= *Mazama temama cerasina* Hollister, 1914. See Grubb (2005:657). Holotype: USNM 12206/14206. Skin and skull. Young male. Collected in 1874 by W. M. Gabb. Original number 54.

Type Locality: Talamanca, [Miller and Kellogg (1955:809): Sipurió, Rio Sixaola, near Caribbean coast, Limón], Costa Rica.

Mazama tema reperticia Goldman

Smithson. Misc. Collect. 60(22): 2, 28 Feb 1913.

= *Mazama temama reperticia* Goldman, 1913. See Grubb (2005: 657).

Holotype: USNM 171673. [Skin and skull]. Adult male. Collected 21 Jun 1911 by E. A. Goldman. Original number [FC: Nelson and Goldman] 21178.

Type Locality: Gatun, Canal Zone (Colon), Panama.

Genus *Muntiacus* Rafinesque, 1815

Muntiacus bancanus Lyon

Proc. U.S. Natl. Mus. 31: 582, 18 Dec 1906.

= *Muntiacus muntjak muntjak* (Zimmermann, 1780). See Groves and Grubb (1990:153).

Holotype: USNM 124726. Skin and skull. Adult female. Collected 7 Jun 1904 by W. L. Abbott. Original number 3296.

Type Locality: Tanjong Bedaan, Island of Banka (Pulau Bangka), [Kepulauan Bangka Belitung], east of Sumatra, [Indonesia].

Muntiacus rubidus Lyon

Proc. U.S. Natl. Mus. 40: 73, 25 Apr 1911.

= *Muntiacus muntjak muntjak* (Zimmermann, 1780). See Groves and Grubb (1990:160).

Holotype: USNM 151863. Skin and skull. Adult male. Collected 20 Mar 1908 by W. L. Abbott. Original number 5907.

Type Locality: [FC: Susulang River], Pamukang Bay (Teluk Pamukan), [Kalimantan Selatan], southeastern Borneo (Kalimantan), [Indonesia].

Genus *Odocoileus* Rafinesque, 1832

Cariacus clavatus True

Proc. U.S. Natl. Mus. 11: 417, 5 Jul 1889a. Secondary junior homonym of *Cervus clavatus* C. Hamilton Smith, 1827. Renamed *Odocoileus truei* by Merriam, Proc. Biol. Soc. Wash. 12: 103, 30 Apr 1898b.

= *Odocoileus virginianus nemoralis* (C. Hamilton Smith, 1827). See Smith (1991:3).

Lectotype as designated by Lyon and Osgood (1909:12): USNM 16075/37424. Skin and skull. Young male. Collected in 1887 [Lyon and Osgood (1909:12): probably in Jul or Aug] by C. H. Townsend. [MC: Skin cataloged 15 Dec 1887; the skull 13 May 1898].

Type Locality: [Miller and Kellogg (1955:808): Comarca de El Cabo], [Lyon and Osgood (1909:12): open pine forests on the Segovia River (Rio Coco), about 50 mi (80 km) from the sea], eastern Honduras [Poole and Schantz (1942:19): northern Nicaragua].

Remarks: A holotype was not designated by number in the original description. Even though Miller (1901b:37) gave measurements for the type, he did not give a specimen number. Although Lyon and Osgood (1909:12) did not refer to USNM 16075/37424 as the lectotype, by listing it as the type by number and giving a locality, they implicitly did so (ICZN, 1999: Article 74.5).

Cariacus virginianus couesi Coues and Yarrow

Rep. Geogr. Geol. Explor. Surv. West Hundredth Meridian 5: 72, 1875.

= *Odocoileus virginianus couesi* (Coues and Yarrow, 1875). See Lydekker (1915:164).

Holotype: USNM 12400/38455. Skin and skull. [Poole and Schantz (1942:22): Young adult] male. Collected 10 Sep 1874 by J. T. Rothrock. Original number 657.

Type Locality: Camp (Fort) Crittenden, [Poole and Schantz (1942:22): altitude 4,000 ft (1,219 m), Sonoita Creek, near Patagonia, between Santa Rita Mountains and Patagonia Mountains], [Miller and Kellogg (1955:803): Santa Cruz County], Arizona.

Remarks: The holotype of this taxon was published as the original number 657. The skin was cataloged as USNM 12400 on 23 Jun 1875; the skull, USNM 38455, was not cataloged until 1911.

Cervus lewisi Peale

U.S. Explor. Exped. 8: 39, 1848.

= *Odocoileus hemionus columbianus* (Richardson, 1829). See Cowan (1936:215).

Syntypes: Peale mentioned two specimens.

Type Locality: Feather River, Upper California and Bay of San Francisco, [California].

Remarks: Peale (1848:40) stated that the skin of the Feather River specimen was lost descending the Sacramento River. Poole and Schantz (1942:574) stated that the antlers (and frontlets?) of both specimens and the skin of the San Francisco specimen were originally in the National Institute and, presumably some time later, were transferred to the Smithsonian. They could not be found in 1909 (Lyon and Osgood, 1909:288), and their whereabouts are still unknown.

Cervus macrotis var. *californicus* Caton

Am. Nat. 10: 464, Aug 1876.

= *Odocoileus hemionus californicus* (Caton, 1876). See Thompson (1898:286).

Holotype: USNM 12587/15424. Skin, skull, and partial skeleton. Four-year-old male. Collected 22 Mar 1876 by J. D. Caton. No original number.

Type Locality: Hills around San Julian ranch, near Gaviota Pass, 40 mi (64 km) up the coast from Santa Barbara, [Santa Barbara County], California.

Remarks: The USNM number was not given in the original description. Caton (1876:468) stated that he sent the specimen to the Smithsonian Institution, and a search of the MC revealed this specimen to be the only possible one; it was cataloged in the spring of 1876. A remark in the MC states that it was not found 4 Mar 1902, and nothing is known of its whereabouts.

Dorcelaphus crooki Mearns

Proc. U.S. Natl. Mus. 20: 2, 11 Feb 1897c. Preprint of Proc. U.S. Natl. Mus. 20: 468, 24 Dec 1897d.

= No current name. *D. crooki* was based on a hybrid between *Odocoileus hemionus* and *O. virginianus*. See Heffelfinger (2000:330).

Holotype: USNM 20572/35752. Skull and parts of skin. Adult female. Collected 9 Jun 1892 by E. A. Mearns [FC: and F. X. Holzner]. Original number 1873.

Type Locality: [SL: Emory Peak], summit of Dog Mountains, [SL: near Mexican Boundary Line], Grant (now Hidalgo) County, New Mexico.

***Dorcelaphus hemionus eremicus* Mearns**

Proc. U.S. Natl. Mus. 20: 4, 11 Feb 1897c. Preprint of Proc. U.S. Natl. Mus. 20: 470, 24 Dec 1897d.

= *Odocoileus hemionus eremicus* (Mearns, 1897). See Thompson (1898:286).

Lectotype as designated by Lyon and Osgood (1909:13): USNM 63403. Skin only. Adult male. Collected in Dec 1895 by W. J. McGee. No original number.

Type Locality: [SL: Seriland], Sierra Seri, near the Gulf of California, opposite Tiburon Island, in the most arid portion of Sonora, Mexico.

Remarks: No type was designated by number in the original description. A skin, USNM 63403, was described in detail, and two sets of antlers were briefly mentioned. Lyon and Osgood (1909:13) decided to list the skin, USNM 63403, as the type = lectotype (ICZN, 1999: Article 74.5).

***Dorcelaphus texanus* Mearns**

Proc. Biol. Soc. Wash. 12: 23, 27 Jan 1898.

= *Odocoileus virginianus texanus* (Mearns, 1898). See Lydekker (1915:163).

Holotype: USNM 84794. [Skin and skull]. Adult male. Collected 25 Dec 1897 by E. A. Mearns. Original number 4288.

Type Locality: Fort Clark, [Miller and Kellogg (1955:803): north of Eagle Pass on Big Bend of Rio Grande], Kinney County, Texas.

Remarks: The holotype was published as the original Mearns field number 4288. It was cataloged as USNM 84794 on 22 Aug 1898.

***Odocoileus cerrosensis* Merriam**

Proc. Biol. Soc. Wash. 12: 101, 30 Apr 1898b.

= *Odocoileus hemionus cerrosensis* Merriam, 1898. See Lydekker (1915:180).

Holotype: USNM 80782. [Skin and skull]. Adult male. Collected 9 Aug 1896 by A. W. Anthony. Original number [SL: 113].

Type Locality: Cerros, or Cedros, Island (Isla Cedros), off Lower California (Baja California), Mexico.

***Odocoileus columbianus scaphiotus* Merriam**

Proc. Biol. Soc. Wash. 12: 101, 30 Apr 1898b.

= *Odocoileus hemionus columbianus* (Richardson, 1829). See Cowan (1936:215).

Holotype: USNM 65162. [Skin and skull]. Adult male. Collected 24 Apr 1894 by J. E. McLellan. Original number 797.

Type Locality: Laguna Ranch, Gabilan Range, [San Benito County], California.

***Odocoileus columbianus sitkensis* Merriam**

Proc. Biol. Soc. Wash. 12: 100, 30 Apr 1898b.

= *Odocoileus hemionus sitkensis* Merriam, 1898. See Cowan (1936:224).

Holotype: USNM 74383. [Skin and skull]. Immature female. Collected 8 Aug 1895 by C. P. Streater. Original number 4767.

Type Locality: Sitka, Alaska.

***Odocoileus costaricensis* Miller**

Proc. Biol. Soc. Wash. 14: 35, 25 Apr 1901b.

= *Odocoileus virginianus nemoralis* (C. Hamilton Smith, 1827). See Smith (1991:3).

Holotype: USNM 11385/13039. Skin and skull. Young adult male. Collected the latter part of 1872 or early in 1873 by J. C. Zeledon. Original number [SL: 46].

Type Locality: Talamanca, between the coast and the foot of the Cordilleras, [Limon], eastern Costa Rica.

***Odocoileus hemionus canus* Merriam**

Proc. Wash. Acad. Sci. 3: 560, 29 Nov 1901e.

= *Odocoileus hemionus eremicus* (Mearns, 1897). See Heffelfinger (2000:330).

Holotype: USNM 99361. [Skin and skull]. Adult male. Collected 7 Oct 1899 by E. W. Nelson and E. A. Goldman. Original number 13996.

Type Locality: Sierra en Media, Chihuahua, Mexico.

***Odocoileus hemionus sheldoni* Goldman**

J. Mammal. 20: 496, 14 Nov 1939b.

Holotype: USNM 242322. Skin and skull. Adult female. Collected 27 Dec 1921 by C. Sheldon. No original number. X-Catalogue number 22627[-X].

Type Locality: Tiburon Island, Sonora, Mexico.

***Odocoileus nelsoni* Merriam**

Proc. Biol. Soc. Wash. 12: 103, 30 Apr 1898b.

= *Odocoileus virginianus nelsoni* Merriam, 1898. See Lydekker (1915:168).

Holotype: USNM 76201. [Skin and skull]. Second-year male. Collected 1 Oct 1895 by E. W. Nelson and E. A. Goldman. Original number 8524.

Type Locality: San Cristobal, [FC: altitude 8,500 ft (2,591 m)], highlands of Chiapas, Mexico.

***Odocoileus thomasi* Merriam**

Proc. Biol. Soc. Wash. 12: 102, 30 Apr 1898b.

= *Odocoileus virginianus thomasi* Merriam, 1898. See Lydekker (1915:168).

Holotype: USNM 77866. [Skin and skull]. Adult male. Collected 22 Feb 1896 by E. W. Nelson and E. A. Goldman. Original number 9359.

Type Locality: Huehuetan, [FC: altitude 500 ft (152 m)], Chiapas, Mexico.

Odocoileus virginianus carminis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 81, 28 Jun 1940.

Holotype: USNM 265224. Skin and skull. Adult male. Collected 27 Oct 1939 by J. M. Dealy. No original number. X-Catalog number 29148[-X].

Type Locality: Botellas Canon (Canyon), altitude 6,500 ft (1,981 m), Sierra del Carmen, northern Coahuila, Mexico.

Odocoileus virginianus dacotensis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 82, 28 Jun 1940.

Holotype: USNM 1837/2879. Skull only, without antlers. Adult male. Collected [MC: 5 Sep] 1856 by F. V. Hayden, surgeon and naturalist with Lt. G. K. Warren, U.S.A., during the exploration of the upper Missouri and Yellowstone Rivers. No original number.

Type Locality: White Earth River, Mountrail County, North Dakota.

Remarks: Although a skin for this specimen was cataloged as USNM 1837 on 3 Dec 1856, it was not present at the time of description and its whereabouts are still unknown.

Odocoileus virginianus hiltonensis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 83, 28 Jun 1940.

Holotype: USNM 256015. Skin and skull. Adult male. Collected 9 [MC: 10] Dec 1930 by W. L. Brown. Original number [SL: 1].

Type Locality: Hilton Head Island, Beaufort County, South Carolina.

Odocoileus virginianus miquihuanensis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 84, 28 Jun 1940.

Holotype: USNM 94071. Skin and skull. Adult female. Collected 9 Jun 1898 by E. W. Nelson and E. A. Goldman. Original number 12511.

Type Locality: Near Miquihuana, altitude 6,500 ft (1,981 m), Sierra Madre Oriental, southwestern Tamaulipas, Mexico.

Odocoileus virginianus nigribarbis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 85, 28 Jun 1940.

Holotype: USNM 265213. Skin and skull, antlers shed. Adult male. Collected 21 Apr 1939 by E. A. Goldman. Original number 24014.

Type Locality: Blackbeard Island, McIntosh County, Georgia.

Odocoileus virginianus oaxacensis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 85, 28 Jun 1940.

Holotype: USNM 68242. Skin and skull. Adult male. Collected 15 Sep 1894 by E. W. Nelson and E. A. Goldman. Original number 6765.

Type Locality: Mountains 15 mi (24 km) west of Oaxaca, altitude 9,500 ft (2,896 m), Oaxaca, Mexico.

Odocoileus virginianus ochrourus Bailey

Proc. Biol. Soc. Wash. 45: 43, 2 Apr 1932a.

Holotype: USNM 159353. [Skin and skull]. Adult male. Collected 27 Dec 1908 by F. Lemmer. Original number [XC: 17]. Miscellaneous catalogue number 7483[-X].

Type Locality: Coolin, south end of Priest Lake, [Bonner County], Idaho.

Odocoileus virginianus seminolus Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 86, 28 Jun 1940.

Holotype: USNM 265557. Skin and skull, antlers in velvet. Adult male. Collected 13 Apr 1940 by R. H. Tabb. Original number [XC: 4]. X-Catalog number 29415[-X].

Type Locality: 10 mi (16 km) northeast of Everglades, Collier County, Florida.

Odocoileus virginianus taurinsulae Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 87, 28 Jun 1940.

Holotype: USNM 265356. Skin and skull. Adult male. Collected 18 Dec 1939 by W. P. Baldwin. Original number [SL: V-71]. X-Catalog number 29214[-X].

Type Locality: [SL: Awendaw], Bulls Island, Charleston County, South Carolina.

Odocoileus virginianus venatorius Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 88, 28 Jun 1940.

Holotype: USNM 256049. Skin, skull, [and skeleton]. Young adult male. Collected 12 [MC: 13] Dec 1930 by W. L. Brown. Original number [MC: 11].

Type Locality: Hunting Island, Beaufort County, South Carolina.

Odocoileus virginianus veraecrucis Goldman and Kellogg

Proc. Biol. Soc. Wash. 53: 89, 28 Jun 1940.

Holotype: USNM 93192. Skin and skull. Adult female. Collected 10 May 1898 by E. W. Nelson and E. A. Goldman. Original number 12363.

Type Locality: Chijol, altitude 200 ft (61 m), northern Vera Cruz (Veracruz), Mexico.

Genus *Rangifer* C. Hamilton Smith, 1827

Rangifer excelsifrons Hollister

Smithson. Misc. Collect. 56(35): 5, 7 Feb 1912c.

= *Rangifer tarandus groenlandicus* (Borowski, 1780). See Geist (1998:325).

Holotype: USNM 16755. Skull only. Adult male. Collected in Mar 1883 by P. H. Ray. Original number 1496.

Type Locality: Meade River, near Point Barrow, Alaska.

Rangifer fortidens Hollister

Smithson. Misc. Collect. 56(35): 3, 7 Feb 1912c.

= *Rangifer tarandus caribou* (Gmelin, 1788), See Banfield (1962:70).

Holotype: USNM 174505. Skin and skull. Adult male. Collected 29 Jul 1911 by N. Hollister and C. D. Walcott Jr. Original number [FC: Hollister 3826].

Type Locality: Head of Moose Pass branch of Smoky River, northeast of Mount Robson, Alberta, [Canada].

Rangifer phylarchus Hollister

Smithson. Misc. Collect. 56(35): 6, 7 Feb 1912c.

= *Rangifer tarandus phylarchus* Hollister, 1912. See Lydekker (1915:245).

Holotype: USNM 21343. Skull, [atlas, and axis]. Adult male. Collected in 1883 by L. Stejneger. Original number 2709.

Type Locality: Southeastern Kamchatka, [Kamchatskiy, Russia].

FAMILY ANTILOCAPRIDAE GRAY, 1866

Genus *Antilocapra* Ord, 1818

Antilocapra americana mexicana Merriam

Proc. Biol. Soc. Wash. 14: 31, 5 Apr 1901f.

Holotype: USNM 98742. Skin and skull. Young adult male. Collected 4 Oct 1899 by E. W. Nelson and E. A. Goldman. Original number 13989.

Type Locality: [SL: Near] Sierra en Media, [Miller and Kellogg (1955:817): about 10 mi (16 km) south of New Mexico border], Chihuahua, Mexico.

Antilocapra americana oregona Bailey

Proc. Biol. Soc. Wash. 45: 45, 2 Apr 1932b.

Holotype: USNM 205548. [Skin and skull]. Adult male. Collected 22 Sep 1914 by L. J. Goldman. Original number 2040.

Type Locality: Hart Mountain, [FC: Mount Warner, altitude 5,500 ft (1,676 m)], Warner Mountains, [Lake County], Oregon.

Antilocapra americana peninsularis Nelson

Proc. Biol. Soc. Wash. 25: 107, 29 Jun 1912.

Holotype: USNM 178445. [Skin and skull]. Adult male. Collected 4 Feb 1912 by E. W. Funcke. Original number [XC: 42]. [SL: 9074-X].

Type Locality: 45 mi (72 km) south of Calmalli, Lower California (Baja California Sur), Mexico.

Antilocapra americana sonoriensis Goldman

Proc. Biol. Soc. Wash. 58: 3, 21 Mar 1945.

Holotype: USNM 250938. Skin and skull. Adult female. Collected 11 Dec 1932 by V. Bailey and F. Winthrop. Original number [FC: VB 11291].

Type Locality: 40 mi (64 km) north of Costa Rica, a ranch on the northern side of the Rio Sonora, southwest of Hermosillo, Sonora, [Mexico].

FAMILY BOVIDAE GRAY, 1814

Genus *Alcelaphus* de Blainville, 1816

Bubalis cokei kongoni Heller

Smithson. Misc. Collect. 60(8): 5, 2 Nov 1912.

= *Alcelaphus buselaphus* (Pallas, 1766). See Ruxton and Schwarz (1929:578), who determined that *B. c. kongoni* Heller, 1912, is a hybrid between *A. b. jacksoni* and *A. b. cokii*.

Holotype: USNM 162992. [Skin, skull, and partial skeleton]. Adult male. Collected 19 Jun 1909 by T. Roosevelt. Original number Heller 139.

Type Locality: [FC: Lime Springs], [SL: Sotik], Southern Guaso Nyiro (Ewaso Ngiro) River, Loita Plains, [Rift Valley], British East Africa (Kenya).

Bubalis leleuel keniae Heller

Smithson. Misc. Collect. 61(17): 3, 21 Oct 1913c.

= *Alcelaphus buselaphus* (Pallas, 1766), See Ruxton and Schwarz (1929:578), who determined that *B. l. keniae* Heller, 1912, is a hybrid between *A. b. jacksoni* and *A. b. cokii*.

Holotype: USNM 182009. [Skin and skull]. Adult male. Collected 27 Jun 1911 by P. J. Rainey. Original number Heller 2310.

Type Locality: [SL: Nyuki River], 20 mi (32 km) northeast of Nyeri, near the Meru road, North Kenia Plateau, [Central Province, Kenya].

Bubalis leleuel roosevelti Heller

Smithson. Misc. Collect. 60(8): 7, 2 Nov 1912.

= *Alcelaphus buselaphus leleuel* (Heuglin, 1877). See Ansell (1972:53).

Holotype: USNM 164734. [Skin and skull]. Adult male. Collected 15 Feb 1910 by T. Roosevelt. Original number Heller 643.

Type Locality: [FC: 90 mi (145 km) north of] Nimule, not Gondokoro as in original description, [Central Equatoria], Uganda (South Sudan).

Bubalis nakurae Heller

Smithson. Misc. Collect. 60(8): 6, 2 Nov 1912.

= *Alcelaphus buselaphus* (Pallas, 1766). See Ruxton and Schwarz (1929:578), who determined that *B. nakurae* Heller, 1912, is a hybrid between *A. b. jacksoni* and *A. b. cokii*.

Holotype: USNM 163130. [Skin and skull]. Adult male. Collected 20 Oct 1909 by K. Roosevelt. Original number Heller 418.

Type Locality: Nakuru, [Rift Valley], British East Africa (Kenya).

Genus *Ammelaphus* Heller, 1912

Ammelaphus imberbis australis Heller

Smithson. Misc. Collect. 61(13): 2, 16 Sep 1913b.

= *Ammelaphus australis* Heller, 1913. See Groves and Grubb (2011:29) for current use.

Holotype: USNM 182073. [Skin and skull]. Adult female. Collected 21 Jul 1911 by M. A. Johnston. Original number [FC: Heller] 2380.

Type Locality: [SL: Marsabit Road], Longaya Water, Marsabit District, [Eastern Province], British East Africa (Kenya).

Genus *Bos* Linnaeus, 1758*Bison bison oregonus* Bailey

Proc. Biol. Soc. Wash. 45: 48, 2 Apr 1932c.

= *Bos bison* Linnaeus, 1758. See Groves and Grubb (2011:115) for current use.

Holotype: USNM 250145. Skull and skeleton. Adult male. Collected in Nov 1931 by G. M. Benson. Original number 26728 in X-Catalogue.

Type Locality: The dry bed of Lake Malheur, [XC: west of Cole Island and east of Graves], [Harney County], Oregon.

Genus *Cephalophus* C. Hamilton Smith, 1827*Cephalophus spadix* True

Proc. U.S. Natl. Mus. 13: 227, 16 Sep 1890.

Holotype: USNM 18965/34707. [Skin and skull]. Adult male. Collected in [Lyon and Osgood (1909:11): 1889–1890] by [MC: W. L. Abbott]. Original number [MC: 21].

Type Locality: High altitudes on Mount Kilimanjaro (Kilimanjaro), [Kilimanjaro], East Africa (Tanzania).

Remarks: The description was based entirely on the skin and was published as such. USNM 34707 is the skull that belongs to it. Both were cataloged on 24 Jun 1890. In a letter in accession record 23158 from Abbott, he stated that collecting in this locality did not continue into 1890. All of the Abbott specimens in the collection from Mount Kilimanjaro were collected in 1888 and 1889.

Genus *Connochaetes* Lichtenstein, 1812*Gorgon albojubatus mearnsi* Heller

Smithson. Misc. Collect. 61(17): 1, 21 Oct 1913c.

= *Connochaetes mearnsi* (Heller, 1913). See Groves and Grubb (2011:218) for current use.

Holotype: USNM 163020. [Skin, skull, and partial skeleton]. Adult male. Collected 28 Jun 1909 by E. A. Mearns. Original number 6809.

Type Locality: [SL: Sotik], [FC: S. Guaso Nyiro (Ewaso Ng'iro River), Loita Plains, [Rift Valley], British East Africa (Kenya).

Genus *Hippotragus* Sundevall, 1845*Ozanna roosevelti* Heller

Smithson. Misc. Collect. 54(6): 1, 3 Mar 1910.

= *Hippotragus roosevelti* (Heller, 1910). See Groves and Grubb (2011:203) for first use of current name combination and current use.

Holotype: USNM 163166. [Skin and skull]. [FC: Adult female]. Collected [SL: 12 Dec], not 14 as given in original description, 1909 by K. Roosevelt. Original number Heller 550.

Type Locality: Simba Hills, [FC: near coast, 20 mi (32 km) south of Mombasa], [Coast Province], British East Africa (Kenya).

Remarks: Published as Heller number 550; cataloged as USNM 163166 on 29 Jun 1910.

Genus *Kobus* A. Smith, 1840*Adenota kob alurae* Heller

Smithson. Misc. Collect. 61(7): 11, 31 Jul 1913d.

= *Kobus kob thomasi* (Sclater, 1896). See Grubb (2005:720).

Holotype: USNM 164788. [Skin, skull, and partial skeleton]. Adult male. Collected 14 Jan 1910 by T. Roosevelt. Original number [SL: E. Heller] 590.

Type Locality: Rhino Camp, Lado Enclave, [Arua, Uganda].

Kobus defassa raineyi Heller

Smithson. Misc. Collect. 61(13): 5, 16 Sep 1913b.

= *Kobus ellipsiprymnus adolfifrigeri* Matschie, 1906. See Ansell (1972:42).

Holotype: USNM 181961. [Skin and skull]. Adult male. Collected 14 May 1911 by P. J. Rainey. Original number [SL: Heller] 2203.

Type Locality: Amala River, [SL: Telak River], [Rift Valley], British East Africa (Kenya).

Kobus ellipsiprymnus kuru Heller

Smithson. Misc. Collect. 61(13): 6, 16 Sep 1913b.

= *Kobus ellipsiprymnus thikae* Matschie, 1911. See Ansell (1972:41).

Holotype: USNM 18950/34694. Skin and skull. Immature male. Collected on unknown date by W. L. Abbott. Original number [MC: 27. Cataloged 24 Jun 1890].

Type Locality: Taveta, Kilimanjaro district (Coast Province), British East Africa (Kenya).

Remarks: Abbott was at this locality in 1888 and 1889.

Genus *Madoqua* Ogilby, 1837*Rhynchotragus kirki nyikae* Heller

Smithson. Misc. Collect. 61(7): 3, 31 Jul 1913d.

= *Madoqua hindei* Thomas, 1902. See Groves and Grubb (2011:178) for current use.

Holotype: USNM 182228. [Skin and skull]. Adult male. Collected 1 Nov 1911 by E. Heller. Original number 2541.

Type Locality: Nidi, near Voi, [Coast Province], British East Africa (Kenya).

Genus *Nanger* Lataste, 1885*Gazella granti raineyi* Heller

Smithson. Misc. Collect. 61(7): 6, 31 Jul 1913d.

= *Nanger notata* (Thomas, 1897). See Groves and Grubb (2011:160) for current use.

Holotype: USNM 182016. [Skin and skull]. Adult male. Collected 30 Jun 1911 by P. J. Rainey. Original number [SL: Heller] 2318.

Type Locality: Isiola (Isiolo) River, Northern Guaso Nyiro (Ewaso Ngiro), [Eastern Province], British East Africa (Kenya).

***Gazella granti roosevelti* Heller**

Smithson. Misc. Collect. 61(7): 4, 31 Jul 1913d.

= *Nanger granti* (Brooke, 1872). See Groves and Grubb (2011:160) for current use.

Holotype: USNM 162009. [Skin and skull]. Adult male. Collected 26 Apr 1909 by K. Roosevelt, not T. as in original description. Original number [FC: Heller] 8.

Type Locality: [FC: Kapiti Plains Station, near] Kitanga Farm, Athi Plains, [Eastern Province]. British East Africa (Kenya).

***Gazella granti serengetae* Heller**

Smithson. Misc. Collect. 61(7): 5, 31 Jul 1913d.

= *Nanger petersii* (Gunther, 1884). See Groves and Grubb (2011:160) for current use.

Holotype: USNM 18961/34703. Skin and skull [cranium only]. Adult male. Collected on unknown date by W. L. Abbott. Original number 23. [MC: Cataloged 24 Jun 1890].

Type Locality: Taveta, western edge of the Serengeti Plains, Kilimanjaro district (Coast Province), British East Africa (Kenya).

Genus *Nesotragus* Von Duben, 1846

***Nesotragus moschatus deserticola* Heller**

Smithson. Misc. Collect. 61(7): 2, 31 Jul 1913d.

= *Nesotragus moschatus* Von Duben, 1846. See Groves and Grubb (2011:149), who placed *deserticola* Heller, 1913, in their monotypic *Neotragus moschatus*, and Barmann and Schikora (2014:285), who returned *moschatus* to *Nesotragus*.

Holotype: USNM 182261. [Skin and skull]. Aged female. Collected 9 Dec 1911 by E. Heller. Original number 2574.

Type Locality: Maji-ya-chumvi, [Coast Province], British East Africa (Kenya).

Genus *Oreotragus* A. Smith, 1834

***Oreotragus oreotragus aureus* Heller**

Smithson. Misc. Collect. 61(13): 7 Sep 1913b.

= *Oreotragus aureus* Heller, 1913. See Groves and Grubb (2011:276) for first and current use of name combination.

Holotype: USNM 182149. [Skin and skull]. Adult female. Collected 15 Sep 1911 by E. Heller. Original number 2458.

Type Locality: Summit of Mt. Lololokwi, [MC: altitude 6,000 ft (1,829 m)], north of the Northern Guaso Nyiro (Ewaso Ngiro), [Rift Valley, Kenya].

Genus *Oryx* de Blainville, 1816

***Oryx annectens* Hollister**

Smithson. Misc. Collect. 56(2): 7, 31 Mar 1910b.

= *Oryx gallarum* Neumann, 1902. See Groves and Grubb (2011:207) for first and current use of name combination.

Holotype: USNM 155436. Skin only. Age and sex not given. Collected about 8 Aug 1908 by J. J. White. No original number.

Type Locality: Vicinity of Guaso Nyiro (Ewaso Ngiro) River, Laikipia Plateau, [Rift Valley], British East Africa (Kenya).

Genus *Ourebia* Laurillard, 1842

***Ourebia microdon* Hollister**

Smithson. Misc. Collect. 56(2): 4, 31 Mar 1910b.

= *Ourebia montana* Cretzschmar, 1826. See Grubb (2005:686), who placed *microdon* as a synonym of *O. ourebia montana*, and Groves and Grubb (2011:179), who elevated *montana* to full specific rank without giving a complete synonymy.

Holotype: USNM 155422. Skull [cranium only]. Adult male. Collected summer [SL: about Jun] 1908 by J. J. White. No original number.

Type Locality: South of the Nzoia River on the Guas Ngishu Plateau, [Western Province]. British East Africa (Kenya).

***Ourebia montana aequatoria* Heller**

Smithson. Misc. Collect. 60(8): 12, 2 Nov 1912.

= *Ourebia montana* Cretzschmar, 1826. See Groves and Grubb (2011:179), who considered *O. montana* to be monotypic.

Holotype: USNM 164713. [Skin, skull, and leg bones]. Adult male. Collected 21 Jan 1910, not 12 as given in original description, by T. Roosevelt. Original number Heller 608.

Type Locality: Rhino Camp, Lado Enclave, [Arua, Uganda].

Genus *Ovis* Linnaeus, 1758

***Nemorhoedus palmeri* Cragin**

Bull. Geol. Soc. Am. 11: 611, 31 Oct 1900.

= *Ovis canadensis canadensis* Shaw, 1804. See Miller (1930:2).

Holotype: USNM 255680. Right humerus and right metacarpal. Age and sex not given. Collected on unknown date by W. J. Palmer. No original number. Received from E. R. Warren. [MC: Cataloged 16 Oct 1930].

Type Locality: Cave on the Glen Eyrie estate [Miller (1930:2) in a valley or canyon about 5 mi (8 km) northwest of Colorado Springs], [El Paso County], Colorado.

Remarks: Miller (1930:1) stated that the specimen was originally number 8042, Division of Vertebrate Paleontology, but that it is of recent origin.

***Ovis canadensis auduboni* Merriam**

Proc. Biol. Soc. Wash. 14: 31, 5 Apr 1901f.

= *Ovis canadensis canadensis* Shaw, 1804. See Wehausen and Ramey (2000:155).

Holotype: USNM 1520/22610. [MC: Skin of the head] and skull. Young adult male. Collected in [MC: winter] 1855 by F. V. Hayden on the Warren Expedition. No original number. [MC: Skin of head cataloged 21 Jun 1856; the skull 4 May 1857].

Type Locality: Upper Missouri [River]. Believed to have been collected in the badlands between the Cheyenne and White Rivers, South Dakota.

Remarks: Even though Merriam (1901f:31) stated that no skins of this taxon had been examined, he did give the skin number belonging to the skull; it cannot be found.

Ovis canadensis gaillardia Mearns

Bull. U.S. Natl. Mus. 56(1): 240, 13 Apr 1907.

= *Ovis canadensis mexicana* Merriam, 1901. See Cowan (1940:545).

Holotype: USNM 59906. Skin and skull. Immature female. Collected 21 Feb 1894 by E. A. Mearns. Original number [FC: Mearns and Holzner] 3029.

Type Locality: Gila Mountains, between Tinajas Altas and the Mexican boundary line, Yuma County, Arizona.

Ovis canadensis texianus Bailey

Proc. Biol. Soc. Wash. 25: 109, 29 Jun 1912.

= *Ovis canadensis mexicana* Merriam, 1901. See Cowan (1940:545).

Holotype: USNM 118255. Skin and skull. Adult female. Collected 2 Sep 1902 by V. Bailey, [FC: shot by M. Surber]. Original number [FC: VB] 7971.

Type Locality: Guadalupe Mountains, [FC: south of Guadalupe Peak], [Culbertson County], Texas.

Ovis canadensis weemsi Goldman

Proc. Biol. Soc. Wash. 50: 30, 2 Apr 1937b.

Holotype: USNM 261696. Skin and skull. Adult female. Collected 13 Apr 1936 by F. C. Weems. No original number. X-Catalogue number 27590[-X].

Type Locality: Cajon de Tecomaja, altitude 2,000 ft (610 m), Sierra de la Giganta, about 30 mi (48 km) south of Cerro de la Giganta, [SL: 6 mi (10 km) southwest of Puerto Escondido], southern Lower California (Baja California Sur), [Mexico].

Ovis mexicanus Merriam

Proc. Biol. Soc. Wash. 14: 30, 5 Apr 1901f.

= *Ovis canadensis mexicana* Merriam, 1901. See Lydekker (1901:11).

Holotype: USNM 99342. [Skin and skull]. Adult male. Collected 16 Sep 1899 by E. W. Nelson and E. A. Goldman. Original number 13974.

Type Locality: Lake Santa Maria, Chihuahua, [SL: Mexico].

Ovis montana dalli Nelson

Proc. U.S. Natl. Mus. 7: 13, 3 Jun 1884.

= *Ovis dalli dalli* Nelson, 1884. See J. A. Allen (1897:112).

Syntype: USNM 13265/20787. [MC: Skin and mandibles. Adult female. Collected winter of 1879–80 by Indians and given to E. W. Nelson by L. N. McQuesten. Original number 154/249].

Syntype: USNM 13266/20786. [MC: Skin and skull. Adult male. Collected winter of 1879–80 by Indians and given to E. W. Nelson by L. N. McQuesten. Original number 155/248].

Type Locality: Mountains south of Fort Yukon, on the west bank of the [Yukon] River; [Miller and Kellogg (1955:823): probably Tanana Hills].

Remarks: These two specimens were not designated by number in the original description. Nelson (1884:12) did, however, state that the types of the new race are two specimens. These are the only two in the collection that match the locality data that he gave.

Ovis nelsoni Merriam

Proc. Biol. Soc. Wash. 11: 218, 15 Jul 1897f.

= *Ovis canadensis nelsoni* Merriam, 1897. See Lydekker (1901:10).

Holotype: USNM 28383/40487. Skin and skull. Adult female. Collected 4 Jun 1891 by E. W. Nelson. Original number 942.

Type Locality: [FC: Bighorn Canyon], Grapevine Mountains, [Miller and Kellogg (1955:823): about 5 mi (8 km) south-erly from Grapevine Peak], just south of lat. 37° [N], on [Inyo County] California–[Esmeralda County] Nevada boundary line.

Ovis sheldoni Merriam

Proc. Biol. Soc. Wash. 29: 130, 6 Sep 1916b.

= *Ovis canadensis mexicana* Merriam, 1901. See Cowan (1940:545).

Holotype: USNM 210585. [Skin and skull]. Adult male. Collected 10 Mar 1916 by C. Sheldon. No original number. [SL: 14006-X].

Type Locality: El Rosario [SL: Mountains], northern Sonora, Mexico.

Genus *Philantomba* Blyth, 1840

Cephalophus monticola musculoides Heller

Smithson. Misc. Collect. 61(7): 9, 31 Jul 1913d.

= *Philantomba aequatorialis musculoides* (Heller, 1913). See Groves and Grubb (2011:268) for first use of current name combination and for current use.

Holotype: USNM 182388. [Skin and skull]. Adult male. Collected 13 Feb 1912 by E. Heller. Original number 2709.

Type Locality: Kagumega (Kakamega) Forest, [Western Province], British East Africa (Kenya).

Genus *Procapra* Hodgson, 1846

Procapra altaica Hollister

Smithson. Misc. Collect. 60(19): 1, 8 Feb 1913d.

= *Procapra gutturosa* (Pallas, 1777). See Bannikov (1954:233).

Holotype: USNM 175179. Skin and skull. Adult male. Collected 5 Jul 1912 by T. Lyman. Original number Hollister 4382.

Type Locality: Suok Plains, near south end of Bain-Chagan Pass, Little Altai, Mongolia.

Genus *Pseudois* Hodgson, 1846

Pseudois nayaur caesia A. B. Howell

Proc. Biol. Soc. Wash. 41: 118, 29 Jul 1928.

= *Pseudois nayaur* (Hodgson, 1833). See Grubb (2005:711), who considered *P. nayaur* to be monotypic.

Holotype: USNM 240683. Skin and skull. Young adult male. Collected 14 Sep 1923 by F. R. Wulsin. Original number 1129.

Type Locality: Archuen, Minshan (Min Shan) Mountains, 140 mi (225 km) south of Lanchow (Lanzhou), Kansu (Gansu), China.

Genus *Redunca* C. Hamilton Smith, 1827

Cervicapra chanleri Rothschild

Novit. Zool. 2: 53, Feb 1895.

= *Redunca chanleri* (Rothschild, 1895). See Trouessart (1904:722) for first use of current name combination and Groves and Grubb (2011:187) for current use.

Holotype: USNM 61868/49418. [Skin, skull, and skeleton]. Adult male. Collected on unknown date by W. A. Chanler. No original number. [MC: Skin cataloged 5 Apr 1895; the skull and skeleton 17 Jun 1895].

Type Locality: Jahnogue Range, Central East Africa, 600 mi (966 km) inland. Restricted to: On the slopes of the Jambene Mountains, about 45 mi (72 km) north northeast of Mount Kenia (Kenya), [Eastern Province], British East Africa (Kenya) by Sclater and Thomas (1897:183).

Remarks: The holotype was not designated by number in the original description. The skin and skeleton, mounted by Rowland Ward and Company, were both in London when described, and Rothschild referred to only one specimen, which he called the type and stated that it would be placed in the Smithsonian Institution. The USNM accession records, 29210 for the mounted skin and 29482 for the skeleton, state that both parts were shipped by Rowland Ward and Company under the orders of Astor Chanler and refer to them as *Cervicapra chanleri*. Accession 29482 specifically states the type of *Cervicapra chanleri*. Therefore, there is no reason not to believe that this specimen is the single one referred to by Rothschild and is the holotype fixed by original designation (ICZN, 1999: Article 73.1.1).

Redunca redunca tobi Heller

Smithson. Misc. Collect. 61(7): 10, 31 Jul 1913d.

= *Redunca bohor* Ruppell, 1842. See Groves and Grubb (2011:185) for current use.

Holotype: USNM 182289. [Skin and skull]. Adult female. Collected 2 Jan 1912 by E. Heller. Original number 2608.

Type Locality: Mariakani, [Coast Province], British East Africa (Kenya).

Genus *Rupicapra* de Blainville, 1816

Rupicapra faesula Miller

Proc. Biol. Soc. Wash. 25: 131, 31 Jul 1912d.

= *Rupicapra rupicapra* (Linnaeus, 1758). See Coutourier (1938:326), who placed *faesula* as a subspecies of *R. rupicapra*, and Grubb (2005:712), who considered it a synonym of *R. rupicapra*.

Holotype: USNM 174943. Skin and skull. Adult male. Collected in Sep 1911 by unknown collector. [MC: Received from W. Schluter of Halle, Germany].

Type Locality: Passo Mandrioli, headwaters of the Savio River, Florence (Firenze), [Toscana], Italy.

Genus *Strepsiceros* C. Hamilton Smith, 1827

Strepsiceros strepsiceros bea Heller

Smithson. Misc. Collect. 61(13): 3, 16 Sep 1913b.

= *Strepsiceros chora* (Cretzschmar, 1826). See Groves and Grubb (2011:141) for first use of current name combination and for current use.

Holotype: USNM 163247. [Skin, skull, leg bones, and scapulae]. Adult female. Collected 10 Oct 1909 by K. Roosevelt. Original number [FC: Heller] 410.

Type Locality: Donyo Gelsha, on the [FC: Laikipia] escarpment east of Lake Baringo, [Rift Valley, Kenya].

Genus *Sylvicapra* Ogilby, 1837

Sylvicapra grimmii [*sic.*] *altivallis* Heller

Smithson. Misc. Collect. 60(8): 10, 2 Nov 1912.

= *Sylvicapra grimmia altivallis* Heller, 1912. See Ansell (1972:37).

Holotype: USNM 164746. [Skin, skull, and leg bones]. Adult female. Collected 10 Aug 1909 by T. Roosevelt. Original number Heller 295.

Type Locality: Summit of Aberdare Range, near Kinanagop (Ilkinangop) Peak, altitude 10,500 ft (3,200 m) [FC: 10,000 ft (3,048 m)], [Central Province, Kenya].

Sylvicapra grimmii [*sic.*] *roosevelti* Heller

Smithson. Misc. Collect. 60(8): 9, 2 Nov 1912.

= *Sylvicapra grimmia campbelliae* (Gray, 1843). See Grubb and Groves (2001:709).

Holotype: USNM 164664. Skin, skull, [and leg bones]. Young adult male. Collected 25 Jan 1910 by T. Roosevelt. Original number Heller 616.

Type Locality: Rhino Camp, Lado Enclave, [Arua], Egyptian Sudan (Uganda).

Sylvicapra grimmia deserti Heller

Smithson. Misc. Collect. 61(17): 4, 21 Oct 1913c.

= *Sylvicapra grimmia orbicularis* (Peters, 1852). See Meester et al. (1986:199).

Holotype: USNM 182219. [Skin and skull]. Adult male. Collected 27 Oct 1911 by E. Heller. Original number 2532.
Type Locality: Voi, [Coast Province], British East Africa (Kenya).

Genus *Tragelaphus* de Blainville, 1816

Tragelaphus scriptus olivaceus Heller

Smithson. Misc. Collect. 61(13): 1, 16 Sep 1913b.

= *Tragelaphus fasciatus* Pocock, 1900. See Groves and Grubb (2011:132) for first use of name combination and for current use.

Holotype: USNM 182267. [Skin and skull]. Adult male. Collected 11 Dec 1911 by E. Heller. Original number 2580.

Type Locality: Maji-ya-Chumvi, [Coast Province], British East Africa (Kenya).

ORDER CETACEA BRISSON, 1762

FAMILY BALAENIDAE GRAY, 1821

Genus *Eubalaena* Gray, 1864

Balaena cisarctica Cope

Proc. Acad. Nat. Sci. Phila. 17: 169, ordered published 29 Aug 1865a.
= *Eubalaena glacialis* (Muller, 1776). See Kukenthal (1900:207).

The name *cisarctica* was not listed in the synonymy of *Eubalaena glacialis* by Mead and Brownell (2005:723).

Holotype: USNM 301637. Skull and nearly complete skeleton. Half grown, sex not given. Collected three years ago (1862), collector unknown. Presented by G. Davidson. No original number.

Type Locality: Opposite this city (Philadelphia). Restricted by Hershkovitz (1966:190) to Delaware River, opposite Philadelphia, on the coast of New Jersey.

Remarks: A holotype was not designated in the original publication, but the name was based on a single specimen in the Academy of Natural Sciences of Philadelphia from the locality given above. Originally ANSP 2817, this specimen was transferred to the NMNH and cataloged as USNM 301637 on 22 Sep 1955. See NMNH accession record 207833. This specimen is located at an off-site storage facility. According to J. G. Mead, emeritus curator, Division of Mammals, NMNH (personal communication to C. A. Ludwig), there is a piece of skin from this specimen in the alcohol collection of the Academy of Natural Sciences of Drexel University (ANSP 1885), and their records indicate the date of collection as 23 Apr 1861. Koopman (1976) did not list this specimen.

FAMILY BALAENOPTERIDAE GRAY, 1864

Genus *Balaenoptera* Lacépède, 1804

Balaenoptera davidsoni Scammon

Proc. Calif. Acad. Sci. 4: 2, 4 Oct 1872. Preprint of Proc. Calif. Acad. Sci. 4: 269, Jan 1873.

= *Balaenoptera acutorostrata* Lacépède, 1804. See Hershkovitz (1966:156).

Holotype: USNM 12177. Skull only (cranium only and a small piece of baleen). Adult female. Collected Oct 1870 by C. M. Scammon. No original number.

Type Locality: [Scammon (1874:49): North shore] Admiralty Inlet, [Island County], [MC: Puget Sound], Washington Territory (Washington).

Remarks: A holotype was not designated by number in the original description, but the description was based on a single specimen, and True (1904:91) determined it to be USNM 12177.

Sibbaldius tectirostris Cope

Proc. Acad. Nat. Sci. Phila. 21: 17, 20 Jul 1869.

= *Balaenoptera physalus* (Linnaeus, 1758). See True (1904:87). Mead and Brownell (2005:725) did not list *tectirostris* in the synonymy of *Balaenoptera physalus*.

Holotype: USNM 301635. Nearly complete specimen (cranium and partial skeleton). Young female. Collected in winter of the present year (1868–1869) but had been dead for some time. Collector not given [MC: J. Carey]. No original number.

Type Locality: The coast near Sinepuxent Bay, [Worcester County] on the Maryland Peninsula.

Remarks: A holotype was not designated by number in the original description, but the description was based on a single specimen in the ANSP, and True (1904:85) determined that this specimen was the only one that matched the data given by Cope. Originally ANSP 5006, this specimen was transferred to the NMNH and cataloged as USNM 301635 on 22 Sep 1955. See NMNH accession record 207833. This specimen is located at an off-site storage facility.

Genus *Megaptera* Gray, 1846

Megaptera bellicosa Cope

Proc. Am. Philos. Soc. 12: 107, 1871. Read 21 Oct 1870 before the Philosophical Society of America.

= *Megaptera novaeangliae* (Borowski, 1781). See Hershkovitz (1966:182). Mead and Brownell (2005:725) did not list *bellicosa* in the synonymy of *Megaptera novaeangliae*.

Holotype: USNM 301636. Skull and skeleton. Young, sex not given. Procured by A. Goes of St. Bartholomew's, WI (Windward Islands) in [ANSP records: Mar 1870]. No original number.

Type Locality: Not given. [True (1904:97): off the coast of Santo Domingo, Haiti, West Indies or St. Bartholomew Island, West Indies].

Remarks: A holotype was not designated by number in the original description, but the description was based on a single specimen that was sent to Philadelphia by Goes. True (1904:97) determined that the ANSP had a specimen whose dimensions agree so closely with those given by Cope that it

must be the type. It was originally ANSP 5007, transferred to the NMNH and cataloged as USNM 301636 on 22 Sep 1955. See NMNH accession record 207833. This specimen is located at an off-site storage facility.

FAMILY DELPHINIDAE GRAY, 1821

Genus *Delphinus* Linnaeus, 1758

Delphinus albimanus Peale

U.S. Explor. Exped. 8: 33, 1848.

= *Delphinus delphis* Linnaeus, 1758. See True (1889b:45, 55).

Holotype: USNM 3743/4107. [Mounted skin and mandibles].

Female, age not given. Collected on unknown date by U.S. Ship *Peacock*. [MC: The skin was cataloged 10 Jun 1860; the mandibles 26 Jun 1860]. Original number 31 in Peale's list of specimens (Peale, 1848:305).

Type Locality: Off the coast of Chile, lat. 27°16'S, long. 75°30'W.

Remarks: The mounted specimen was present in 1900 according to Lyon and Osgood (1909:9) but was stated as missing by Poole and Schantz (1942:108). It still cannot be found.

Delphinus bairdii Dall

Proc. Calif. Acad. Sci. 5: 12, 29 Jan 1873.

= *Delphinus capensis* Gray, 1823. See Heyning and Perrin (1994:29).

Syntypes: Not known to exist. Two females, age not given. Collected on unknown date by C. M. Scammon. No original numbers.

Type Locality: Cape (Point) Arguello, [Santa Barbara County], California.

Remarks: Scammon (1874:12) stated that one entire skeleton had been forwarded to Washington. There is no record of it being received.

Genus *Globicephala* Lesson, 1828

Globiocephalus scammonii Cope

Proc. Acad. Nat. Sci. Phila. 21: 21, 20 Jul 1869.

= *Globicephala macrorhynchus* Gray, 1846. See van Bree (1971:85).

Lectotype as designated by True (1889b:140): USNM 9074. [Skull only]. Age and sex not given. Collected [Scammon (1869:58): 14 Dec 1862 by C. M. Scammon]. No original number.

Type Locality: [Scammon (1869:58): Coast of Lower California (Baja California) in latitude 31°, land 10 mi (16 km) distant].

Remarks: Recataloged as USNM 238167 on 24 Feb 1922.

Genus *Grampus* Gray, 1828

Grampus stearnsii Dall

Proc. Calif. Acad. Sci. 5: 13, 29 Jan 1873.

= *Grampus griseus* (G. Cuvier, 1812). See Hershkovitz (1966:89). Lectotype as designated by True (1889b:130): USNM 13021.

Mandible only. Age and sex not given. Collected on unknown date by [Dall (1874:300): C. M. Scammon]. [MC: Cataloged in 1873]. No original number, but the mandible is labeled "B."

Type Locality: Coast of California. Given by Dall (1874:300) as Monterey, [Monterey County], California.

Remarks: A holotype was not designated by number in the original description. Dall (1873:13) mentioned two lower jaws in his description, and True (1889b:130) equated USNM 13021 to one of Dall's specimens and gave measurements for it.

Genus *Lagenorhynchus* Gray, 1846

Delphinus longidens Cope

Proc. Acad. Nat. Sci. Phila. 18: 295, ordered published 30 Oct 1866. Receipt acknowledged 16 Feb 1867 by the Smithsonian Institution.

= *Lagenorhynchus obliquidens* Gill, 1865. See True (1889b:99). Holotype: USNM 3886. [Skull only]. [Lyon and Osgood (1909:8): Young adult]. Collected on unknown date by [SL: the U.S. Exploring Expedition, 1838–1842]. [MC: Cataloged 20 Jun 1860]. No original number.

Type Locality: Unknown.

Lagenorhynchus gubernator Cope

Proc. Acad. Nat. Sci. Phila. 28: 138, ordered published 20 Jun 1876.

= *Lagenorhynchus acutus* (Gray, 1828). See True (1889b:83).

Holotype: Not known to exist. [True (1889b:86): Young], sex not given. Collected on unknown date [MC: Aug 1873] by the U.S. Fish Commission. No original number.

Type Locality: Near the same locality as the last, [Portland, Maine]. Lyon and Osgood (1909:8) quoted a manuscript note by F. W. True, not seen by us, in which he stated that the "last," *L. perspicillatus*, was really from Cape Cod, Massachusetts, and that *L. gubernator* was from Casco Bay, near Portland, [Cumberland County], Maine.

Remarks: Cope (1876:138) stated that two plaster casts were made and colored from the fresh specimen. These are USNM 12305, which cannot be found, and USNM 12306, which is in the type collection, although it technically only represents the holotype and is not the holotype itself.

Lagenorhynchus obliquidens Gill

Proc. Acad. Nat. Sci. Phila. 17: 177, ordered published 26 Sep 1865b.

Syntypes as determined by True (1889b:98): USNM 1961, 1962, and 1963. Skulls only. Adult, sex not given. Collected on unknown date by [SL: W. P. Trowbridge]. No original numbers. [MC: Cataloged 24 Oct 1855].

Type Locality: [Lyon and Osgood (1909:8): Pacific Ocean, near] San Francisco, [San Francisco County], California.

Remarks: Gill (1865b:178) stated that the Smithsonian has three adult specimens of his new species, and True (1889b:98) determined that the three specimens listed above are those.

Lagenorhynchus perspicillatus Cope

Proc. Acad. Nat. Sci. Phila. 28: 136, ordered published 20 Jun 1876.

= *Lagenorhynchus acutus* (Gray, 1828). See True (1889b:85).

Lectotype as designated herein: USNM 14244. Cranium only.

Adult, sex unknown. Collected on unknown date by V. N. Edwards. No original number.

Type Locality: Cape Cod, Barnstable County, Massachusetts.

Remarks: A holotype was not designated by number in the original description, but Cope stated that "this species is represented in the collections of the Smithsonian Institution by numerous crania, some skeletons and a colored cast of the natural size, taken by the United States Commission of Fisheries, near Portland, Maine." In citing a manuscript note by F. W. True, not seen by us, Lyon and Osgood (1909:8–9) and Poole and Schantz (1942:110) considered USNM 12939, 14228–14326, 14335, and 14362–14373 as cotypes = syntypes. However, as pointed out to us by C. W. Potter, recently retired collections manager of marine mammals, a specimen in that series, USNM 14246, is not a *Lagenorhynchus*, rendering the series composite. In order to attach the name *Lagenorhynchus perspicillatus* Cope to a known *Lagenorhynchus*, we designate USNM 14244 as the lectotype. We choose this particular specimen because True (1889b:169) listed it as a *Lagenorhynchus acutus* and gave measurements.

In the same manuscript note, True also indicated that the locality given by Cope "is incorrect and should be Woods Hole, Mass. or else Cape Cod." The series in the museum catalog is recorded as being from Cape Cod.

Phocaena australis Peale

U.S. Explor. Exped. 8: 33, 1848.

= *Lagenorhynchus australis* (Peale, 1848). See Kellogg (1941:296).

Holotype: Not known to exist. Collected 12 Feb, year unknown.

Type Locality: South Atlantic Ocean, off the coast of Patagonia.

[Kellogg (1941:296): added one day's sail north of the Strait of Le Maire between Staten Island and Cape San Diego, Tierra de Fuego].

Remarks: Nothing is known about this specimen, and it was not included in Peale's list of specimens (Peale, 1848:305).

Sagmatias amblodon Cope

Proc. Acad. Nat. Sci. Phila. 18: 294, ordered published 30 Oct 1866. Receipt acknowledged 16 Feb 1867 by the Smithsonian Institution.

= *Lagenorhynchus australis* (Peale, 1848). See Kellogg (1941:296).

Holotype: USNM 3887. [Skull only]. [True (1889b:106): Old adult], sex unknown. Collected on unknown date by the ship *Vincennes* of the U.S. Exploring Expedition. Original number [MC: 2].

Type Locality: [MC: Caught at sea]. [Lyon and Osgood (1909:7): added probably between Cape Horn and Lima, Peru, or Australia, or New Zealand].

Remarks: The holotype was not designated by number in the original description, but the description was based on a single specimen. True (1889b:106) determined it to be the one listed above.

Genus *Lissodelphis* Gloger, 1841

Delphinapterus borealis Peale

U.S. Explor. Exped. 8: 35, 1848.

= *Lissodelphis borealis* (Peale, 1848). See Elliot (1901:30).

Holotype: Not known to exist.

Type Locality: North Pacific Ocean, lat. 46°6'50"N., long. 134°5'W. from Greenwich, [Poole and Schantz (1942:575): 10° west of Astoria, Oregon].

Remarks: Nothing is known about this specimen, and it was not included in Peale's list of specimens (Peale, 1848:305). Cassin (1858:30) remarked that he had no specimens of this taxon for examination.

Genus *Peponocephala* Nishiwaki and Norris, 1966

Phocaena pectoralis Peale

U.S. Explor. Exped. 8: 32, 1848.

= *Peponocephala electra* (Gray, 1846). See Mead and Brownell (1993:355).

Holotype: USNM 4108. Mandible only. Old, sex not given. Collected on unknown date by the U.S. Exploring Expedition. Original number 32 in Peale's list of specimens on page 305. [MC: Cataloged 26 Jun 1860].

Type Locality: Hilo Bay, Hawaii, [Hawaiian Islands].

Remarks: A holotype was not designated by number in the original description, but it was based on a single mandible. True (1889b:101) determined it to be the one listed above.

Genus *Pseudorca* Reinhardt, 1862

Orca destructor Cope

Proc. Acad. Nat. Sci. Phila. 18: 293, ordered published 30 Oct 1866. Receipt acknowledged 16 Feb 1867 by the Smithsonian Institution.

= *Pseudorca crassidens* (Owen, 1846). See True (1889b:143).

Holotype: USNM 3679. [Rostrum and mandible]. Age and sex not given. Collector and date of collection not given. [MC: Cataloged 11 Feb 1866].

Type Locality: Southern Pacific Ocean, off Paita, [Piura], Peru.

Genus *Stenella* Gray, 1866

Delphinus albirostratus Peale

U.S. Explor. Exped. 8: 34, 1848.

= *Stenella attenuata* (Gray, 1846). See Perrin et al. (1987:150).
 Holotype: Not known to exist. Collected 22 Aug, year unknown.
 Type Locality: Pacific Ocean, lat. 2°47'5"S., long. 174°13'W. of Greenwich. [Perrin (1975:22): Phoenix Islands].
 Remarks: Nothing else is known about this specimen. It was not in Peale's list of specimens (Peale, 1848:305), and Cassin (1858:32) did not see it in the collections of the expedition.

Delphinus lateralis Peale

U.S. Explor. Exped. 8: 35, 1848.
 = *Stenella attenuata* (Gray, 1846). Personal communication from J. G. Mead to R. D. Fisher.
 Holotype: Not known to exist. Collected 13 Sep, year unknown.
 Type Locality: Pacific Ocean, lat. 13°58'N., long. 161°22'W., [Poole and Schantz (1942:576): about 7° southwest of Hawaiian Islands].
 Remarks: Nothing else is known about this specimen. It was not in Peale's list of specimens (Peale, 1848:305), and Cassin (1858:32) did not see it in the collections of the expedition.

Delphinus plagiodon Cope

Proc. Acad. Nat. Sci. Phila. 18: 296, ordered published 30 Oct 1866. Receipt acknowledged 16 Feb 1867 by the Smithsonian Institution.
 = *Stenella frontalis* (G. Cuvier, 1829). See Perrin et al. (1987:117).
 Holotype: USNM 3884. Skull only. Youngish, sex not given. Collected on unknown date by [SL: J. Varden]. [MC: Cataloged 20 Jun 1860].
 Type Locality: Unknown.

Stenella longirostris centroamericana Perrin

Proc. Biol. Soc. Wash. 103: 461, 28 Jun 1990.
 Holotype: USNM 395933. Skull only. Adult male. Collected 26 Mar 1963 by D. W. Waller. Original number BCFBL, SDXIII-9, [MC: DW 26].
 Type Locality: 9°47'N, 85°42'W, Gulf of Nicoya, Pacific coast of Costa Rica.

Genus *Tursiops* Gervais, 1855

Tursiops gillii Dall

Proc. Calif. Acad. Sci. 5: 13, 29 Jan 1873.
 = *Tursiops truncatus gillii* Dall, 1873. See Rice (1998:106).
 Holotype: USNM 13022. Lower jaws only. [Lyon and Osgood (1909:9): Young adult], sex not given. Collected [MC: in 1872 by C. M. Scammon]. No original number.
 Type Locality: Monterey, [Monterey County], California.
 Remarks: The holotype was not designated by number in the original description, but it was based on a single mandible, and True (1889b:43, footnote) determined that USNM 13022 was that specimen. Also featured in the description was an outline drawn by C. M. Scammon that cannot be found.

Tursiops subridens True

Bull. U.S. Natl. Mus. 27: 638, 1884a.
 = *Tursiops truncatus* (Montagu, 1821). See Hershkovitz (1966:54). Mead and Brownell (2005:734) did not list *subridens* in their synonymy.
 Syntype: USNM 16504. Skull [and mounted skeleton] also represented by a cast of the head and a whole-body cast separately numbered as USNM 13317. Male, age not given. Collected 24 Jun 1881 by the U.S. Fish Commission. No original number.
 Syntype: USNM 16505. [Skull and mounted skeleton], also represented by a cast of the head separately numbered as USNM 13318. Female, age not given. Collected 25 Jun 1881 by the U.S. Fish Commission. No original number.
 Type Locality: Cherrystone Point, [Northampton County], Virginia.
 Remarks: USNM 16505 was not listed by number in the original description, but it belongs to the cast, USNM 13318, that was. Even though the casts listed above were given in the original description, they are to be considered simply as representing the syntypes and are not syntypes themselves (see ICZN, 1999: Articles 73.1.4, 74.4). The casts associated with USNM 13317 and the head cast associated with USNM 13318 cannot be found. The two mounted postcranial skeletons are located in an off-site storage facility, as is the whole-body cast associated with USNM 13318.

FAMILY PHOCOENIDAE GRAY, 1825

Genus *Phocoena* G. Cuvier, 1816

Phocoena lineata Cope

Proc. Acad. Nat. Sci. Phila. 28: 134, ordered published 29 Jun 1876.
 = *Phocoena phocoena phocoena* (Linnaeus, 1758). See Gaskin et al. (1974:1).
 Holotype: USNM 12481/15781. [MC: Stuffed skin and skull]. Age not given, [True (1889b:120): female]. Collected not many months ago by [MC: J. Wallace] and sent to the Smithsonian Institution. No original number. [MC: Skin cataloged 20 Jan 1876; the skull 16 Jun 1877].
 Type Locality: Harbor of New York, [New York].
 Remarks: The holotype was not designated by number in the original description. Lyon and Osgood (1909:6) determined that the specimen listed above was the single specimen upon which the description was based. According to the original description, the specimen sent to the Smithsonian was a skeleton, but there is no record of it. At one time, a plaster cast made from the stuffed skin and cataloged USNM 16255 also represented the holotype, but it cannot be found, and according to the MC, the stuffed skin was destroyed. Somewhere along the line, there was a mix-up with this specimen, as explained in a lengthy undated note from F. W. True that is with the skull and that is nicely summarized by

Poole and Schantz (1942:110–111). The skull, supposedly removed from the skin, is a *Delphinus delphis* according to J. G. Mead, emeritus curator of marine mammals. The accession record associated with this specimen, 4723, simply states 1876, John Wallace, New York City, *Delphinus delphis*, so it is quite possible that Cope's holotype of *P. lineata* never made it to the Smithsonian, but a *Delphinus* collected about the same time from the Hudson River did and was mistaken by Lyon and Osgood (1909:6) to be the holotype of *P. lineata*.

***Phocaena vomerina* Gill**

Proc. Acad. Nat. Sci. Phila. 17: 178, ordered published 26 Sep 1865b.

= *Phocoena phocoena vomerina* Gill, 1865. See Tomlin (1957:703).

Syntype: USNM 4149. Much injured skull (rostrum and part of brain case). [Lyon and Osgood (1909:6): Adult], sex not given. Collected on unknown date by C. B. R. Kennerly. No original number. [MC: Cataloged 6 Jul 1860].

Type Locality: Puget's (Puget) Sound, [Washington].

Syntype: USNM 4746/4402. Skin and skull. Young, sex not given. Collected on unknown date by W. Stimpson. Original number [MC: V-364]. [MC: Skin cataloged 13 Apr 1861; the skull 20 Apr 1861].

Type Locality: San Francisco, [San Francisco County, California].
Remarks: The syntypes were not designated by number in the original description. The specimens listed above are the only ones in the collection that have the data given by Gill. The type locality for the taxon encompasses both localities given above (ICZN, 1999: Article 73.2.3).

Genus *Phocoenoides* Andrews, 1911

***Phocaena dalli* True**

Proc. U.S. Natl. Mus. 8: 95, 19 Jun 1885a.

= *Phocoenoides dalli dalli* (True, 1885). See Andrews (1911:34).

Holotype: USNM 21762. Skull only. [Lyon and Osgood (1909:5): Adult] male. Collected 13 Aug 1873 by W. H. Dall. Original number [MC: 1554].

Type Locality: Strait west of Adakh (Adak) Island, Aleutian Group (Islands), Alaska.

Remarks: A holotype was not designated by number in the original description, but measurements of the type skull were given by True (1885a:98). True (1889b:125) repeated the same measurements and associated them with the type, USNM 21762.

FAMILY PHYSETERIDAE GRAY, 1821

Genus *Kogia* Gray, 1846

***Kogia floweri* Gill**

Am. Nat. 4: 738, Feb 1871.

= *Kogia breviceps* (de Blainville, 1838). See Miller (1924:507).
Holotype: USNM 8016. Mandible only. Age and sex not given.

Collected in 1868 by A. J. Grayson. No original number.

Type Locality: A short distance from Mazatlan, [Sinaloa, Mexico].

Remarks: The holotype was not designated by number in the original description, but it was based on a jaw and portrait. USNM 8016 is the only specimen in the collection that fits the description. The portrait is a watercolor of the entire animal and is located in the Division of Mammals Archives Room.

***Kogia goodei* True**

Bull. U.S. Natl. Mus. 27: 630 (table) and 641 (list), 1884b.
Nomen nudum as no description was given.

***Kogia goodei* Goode**

Nat. Hist. Aquat. Anim. Pt. 1 Mammals. A. Whales Porpoises: pl. 2, 1884, as delineated by G. M. Allen (1941:20).

= *Kogia breviceps* (de Blainville, 1838). See True (1884b: pl. 8, fig. 22).

Holotype: USNM 20909. [Skull and skeleton, some intestines, larynx, and piece of kidney (not seen) in alcohol]. [Lyon and Osgood (1909:4): Adult female]. Collector and date of collection not given. [MC: Received in flesh from H. S. Howland 27 Apr 1883].

Type Locality: [MC: Spring Lake], [Monmouth County], [MC: New Jersey].

Remarks: The name *Kogia goodei* was made available by Goode (1884: pl. 2), who figured USNM 13738, a whole-body cast made from the original specimen. USNM 20909 comprises various parts of the original specimen and therefore is technically the holotype. In addition to the whole-body cast, the holotype is also represented by an ink drawing and an oil painting. The MC indicated that there was also a cast of the head, but it cannot be found. The whole-body cast is located at an off-site storage facility; the drawing and painting are in the Division of Mammals Archives Room.

FAMILY INIIDAE GRAY, 1846

Genus *Lipotes* Miller, 1918

***Lipotes vexillifer* Miller**

Smithson. Misc. Collect. 68(9): 8, 30 Mar 1918.

Holotype: USNM 218293. Skull and cervical vertebrae. Adult male. Collected 18 Feb 1916 by C. M. Hoy. No original number.

Type Locality: Tung Ting Lake, [Hunan], China.

FAMILY ZIPHIIDAE GRAY, 1865

Genus *Berardius* Duvernoy, 1851

***Berardius bairdii* Stejneger**

Proc. U.S. Natl. Mus. 6: 75, 22 Jun 1883.

Holotype: USNM 20992. Skull only. Young, sex not given. Collected fall of last year (1882) by N. Grebnitzky. Original number [L. Stejneger] 1520.

Type Locality: Stare Gavan, eastern shore of Bering Island (Ostrov Beringa), [Commander Islands (Komandorskiye Ostrova), Kamchatskiy, Russia].

Remarks: Published as L. Stejneger number 1520; cataloged as USNM 20992 on 24 Nov 1883.

Genus *Mesoplodon* Gervais, 1850

Mesoplodon carlhubbsi Moore

Am. Midl. Nat. 70: 422, Oct 1963.

Holotype: USNM 278031. Entire skull and skeleton, hyoids (larynx), pelvis (not seen), and one eye in alcohol, dorsal fin (not seen), and one tip of a fluke (not seen). Adult male. Collected 25 Jul 1946 [MC: 1945] by C. Hubbs. No original number.

Type Locality: La Jolla, [San Diego County], California, 32°51'41"N. Lat., 117°15'19"W. Long.

Remarks: The year of collection must be incorrect in the original description as the specimen was cataloged 5 Sep 1945.

Mesoplodon mirum True

Smithson. Misc. Collect. 60(25): 1, 14 Mar 1913.

= *Mesoplodon mirus* True, 1913. See Harmer (1919:18).

Holotype: USNM 175019. Skull and partial skeleton. Adult female. Collected 26 Jul 1912 by U.S. Bureau of Fisheries. No original number.

Type Locality: [SL: Bird Island Shoal], Beaufort Harbor, [Carteret County], North Carolina.

Remarks: The holotype is also represented by a cast of the head. At one time (Poole and Schantz, 1942:115) there was also a cast of the whole body, but it cannot be found.

Mesoplodon perrini Dalebout, Mead, Baker, Baker, and van Helden

Mar. Mammal Sci. 18: 583, Jul 2002.

Holotype: USNM 504853. Skull and skeleton, [testes (not seen) and stomach in fluid, teeth detached with three mounted tooth sections, and mounted section of testis]. Adult male. Found 9 Sep 1978 by G. Carsten and collected and prepared two days later by J. G. Mead. Original number [MC: JGM 391].

Type Locality: Carlsbad, [MC: 0.5 mi (0.8 km) south of the power plant, San Diego County], California, 33°07'N, 117°20'W.

Mesoplodon stejnegeri True

Proc. U.S. Natl. Mus. 8: 585, 21 Nov 1885c.

Holotype: USNM 21112. Cranium only. Young, sex not given. Collected in 1883 by L. Stejneger. No original number.

Type Locality: Bering Island (Ostrov Beringa), Commander Islands (Komandorskiye Ostrova), [Kamchatskiy, Russia].

Genus *Ziphius* G. Cuvier, 1823

Hyperodon [*sic*] *semijunctus* Cope

Proc. Acad. Nat. Sci. Phila. 17: 280, ordered published 26 Dec 1865b.

= *Ziphius cavirostris* G. Cuvier, 1823. See True (1910:30). Mead and Brownell (2005:741) did not list *semijunctus* in their synonymy.

Holotype: USNM 21975. Skull and skeleton. [True (1885b:586): Very young] [True (1910:31): female]. Collected by [SL: G. E. Manigault in Mar 1861]. No original number.

Type Locality: Charleston Harbor, [Charleston County], [SL: South Carolina].

Remarks: A holotype was not designated by number in the original description, but the name was based on a single specimen in the Charleston Museum. This specimen was transferred to the USNM on 3 June 1885 and cataloged as USNM 21975 on 15 Jul 1885. See True (1885b:586).

Ziphius grebnitzkii Stejneger

Proc. U.S. Natl. Mus. 6: 77, 22 Jun 1883.

= *Ziphius cavirostris* G. Cuvier, 1823. See True (1910:30). Mead and Brownell (2005:743) did not list *grebnitzkii* in their synonymy.

Holotype: USNM 20993. Skull only. Old [True (1910:31): male?]. Collected in fall of last year (1882) by N. Grebnitzky. Original number [L. Stejneger] 1521.

Type Locality: Bering Island (Ostrov Beringa), [Commander Islands (Komandorskiye Ostrova), Kamchatskiy, Russia].

Remarks: The holotype was published as L. Stejneger number 1521 and cataloged as USNM 20993 on 24 Nov 1883.

Addendum

ORDER CHIROPTERA BLUMENBACH, 1779

FAMILY PHYLLOSTOMIDAE GRAY, 1825

Genus *Lonchophylla* Thomas, 1903

Lonchophylla inexpectata Moratelli and Dias

ZooKeys 514: 76, Jan 2015.

Holotype: USNM 238008. Skin and skull. Adult male. Collected in Jan 1908 by E. Garbe. No original number. [SL: Museu Paulista number 2676].

Type Locality: Barra, 12°42'S, 41°33'W, Bahia, Brazil.

ORDER RODENTIA BOWDICH, 1821

FAMILY MURIDAE ILLIGER, 1811

Genus *Batomys* Thomas, 1895

Batomys uragon Balete, Rickart, Heaney, and Jansa

Proc. Biol. Soc. Wash. 128: 28, 16 Apr 2015.

Holotype: USNM 458949. In alcohol, skull removed. Old adult male. Collected 25 Apr 1988 by E. A. Rickart. Original number 2004.

Type Locality: 4 km N, 22 km E Naga City, elevation 1,750 m, 13°40'N, 123°22'E, Mt. Isarog, Camarines Sur Province, Luzon Island, Philippines.

Appendix A

TABLE A1. Alphabetical list of countries, islands, and provinces or states in which type specimens were collected. From the type collection database, which does not include data for specimens that were transferred to other collections or for those that should be in the collection but for which we have no record.

Country	Island	Province or State	Total
American Samoa			1
Andaman and Nicobar Islands			16
Angola			1
Argentina			13
Australia			6
Bahamas			5
Barbados			2
Bolivia			1
Botswana			2
Brazil			21
Brazil?			1
Cameroon			2
Canada		Alberta	13
		British Columbia	44
		Manitoba	5
		New Brunswick	1
		Newfoundland	3
		Northwest Territories	14
		Nova Scotia	2
		Nunavut	2
		Ontario	1
		Quebec	13
		Saskatchewan	2
		Yukon	11
Caroline Islands			3
Central African Republic			1
Chad			1
Chile			6

(Continued)

TABLE A1. (Continued)

Country	Island	Province or State	Total
China			49
Colombia			21
Costa Rica			27
Cote d'Ivoire			1
Cuba			4
Dominica			4
Dominican Republic			4
Ecuador			4
Ethiopia			2
Fiji			1
France			3
Gabon			1
Germany			1
Ghana			1
Greece			1
Greenland			1
Grenada			1
Guadeloupe			4
Guatemala			28
Haiti			5
Hawaiian Islands			2
Honduras			13
Honduras/Nicaragua			1
India			14
Indonesia	Java		4
	Kalimantan		73
	Sulawesi		43
	Sumatra		200
			58
Iran			5
Italy			4
Jamaica			5
Japan			4
Kazakhstan			1
Kenya			148
Korea			6
Lebanon			1
Liberia			7
Libya			24
Locality unknown			8
Malaysia	Borneo		9
			26
Mauritania			1
Mexican boundary line		Arizona/Sonora	1
Mexico		Aguascalientes	1
		Baja California	23
		Baja California Sur	50
		Campeche	13
		Chiapas	37

Country	Island	Province or State	Total
		Chihuahua	29
		Coahuila	22
		Colima	16
		Distrito Federal	7
		Durango	6
		Guanajuato	2
		Guerrero	22
		Hidalgo	7
		Jalisco	29
		Mexico	12
		Michoacán	25
		Morelos	3
		Nayarit	21
		Nuevo Leon	5
		Oaxaca	60
		Puebla	22
		Queretaro	5
		Quintana Roo	10
		San Luis Potosi	9
		Sinaloa	7
		Sonora	41
		Tabasco	9
		Tamaulipas	17
		Tlaxcala	1
		Veracruz	47
		Yucatan	15
		Zacatecas	12
Mongolia			1
Morocco			11
Myanmar			42
Namibia			2
Netherlands Antilles			6
Nicaragua			9
Nigeria			1
Norway			2
Pakistan			9
Panama			68
Paraguay			7
Peru			18
Philippines	Basilan		4
	Bohol Island		1
	Cagayan Island		2
	Catanduanes Island		3
	Guimaras Island		2
	Luzon		14
	Mindanao		31
	Mindoro		10
	Palawan		2
	Panay		1
	Samar		1
	Ticao Island		1
			5

(Continued)

TABLE A1. (Continued)

Country	Island	Province or State	Total
Puerto Rico			5
Romania			1
Russia			27
Saint Kitts and Nevis			1
Saint Lucia			2
Saint Vincent and the Grenadines			1
Samoa Islands			2
Seychelles			3
Society Islands			1
South America			1
South Shetland Islands			1
Spain			1
Sudan			9
Swan Islands			1
Sweden			1
Switzerland			3
Taiwan			3
Tanzania			9
Thailand			67
Trinidad and Tobago			2
Tunisia			3
Turks and Caicos Islands			1
Uganda			28
United States		Alabama	7
		Alaska	119
		Arizona	129
		Arkansas	4
		California	196
		California/Nevada	1
		Colorado	41
		Florida	29
		Georgia	3
		Georgia/South Carolina	2
		Idaho	31
		Illinois	5
		Indiana	1
		Iowa	1
		Kansas	7
		Kentucky	3
		Louisiana	6
		Maine	1
		Maryland	5
		Massachusetts	6
		Michigan	2
		Minnesota	8
		Mississippi	2
		Missouri	2
		Montana	22
		Nebraska	11

Country	Island	Province or State	Total
		Nevada	29
		New Hampshire	4
		New Jersey	3
		New Mexico	65
		New York	6
		North Carolina	8
		North Dakota	11
		Oklahoma	6
		Oregon	59
		Pennsylvania	13
		South Carolina	7
		South Dakota	9
		Tennessee	1
		Texas	80
		Utah	49
		Vermont	2
		Virginia	14
		Washington	70
		West Virginia	3
		Wisconsin	13
		Wyoming	56
			2
Venezuela			27
Vietnam			1
Vietnam?			1
West Indies			1
Grand total			3,209

Appendix B

TABLE B1. Alphabetical list of authors of type specimen descriptions. From the type collection database, which does not include data for specimens that were transferred to other collections or for those that should be in the collection but for which we have no record.

Author	Total
Allen, G. M.	1
Allen, H.	22
Allen, J. A.	50
Alvarez, T.	1
Andersen, K.	12
Anderson, R. P.	1
Anderson, R. P., and E. E. Gutierrez	1
Anderson, R. P., and C. O. Handley Jr.	1
Audubon, J. J., and J. Bachman	1
Bachman, J.	3
Bailey, H. H.	4
Bailey, V.	84
Bailey, V., and J. K. Doult	1
Baird, S. F.	65
Baker, R. H.	1
Barbour, R. W.	1
Baleta, D. S., E. A. Rickart, L. R. Heaney, and S. A. Jansa	1
Barnston, G.	1
Bee, J. W., and E. R. Hall	1
Berlandier, J. L.	1
Bogan, M. A.	1
Booth, E. S.	2
Bowen, W. W.	1
Brandon-Jones, D.	1
Brown, L. N.	1
Burns, J. J.	1
Cabrera, A.	1
Callahan, J. R.	1
Callahan, J. R., and R. Davis	1

(Continued)

TABLE B1. (Continued)

Author	Total
Carraway, L. N.	2
Cary, M.	3
Cassin, J.	1
Caton, J. D.	1
Chapman, F. M.	1
Chapman, J. A., K. L. Cramer, N. J. Dippenaar, and T. R. Robinson	1
Choate, J. R.	1
Cockrum, E. L.	2
Cockrum, E. L., and K. L. Fitch	2
Cockrum, E. L., T. C. Vaughan, and P. J. Vaughan	2
Cooper, J. G.	1
Cope, E. D.	13
Coues, E.	17
Coues, E., and H. C. Yarrow	1
Cragin, F. W.	1
Cuvier, F.	1
Dalebout, M. L., J. G. Mead, C. S. Baker, A. N. Baker, and A. L. van Helden	1
Dall, W. D.	2
Dalquest, W. W., and V. B. Scheffer	3
Davis, W. B.	2
de la Torre, L.	1
de la Torre, L., and A. Schwartz	2
Deleuil, R., and A. Labbe	1
Diersing, V. E.	1
Diersing, V. E., and D. E. Wilson	2
Dieterlen, F.	1
Dobson, G. E.	2
Dozier, H. L.	1
Drake, H., and E. S. Booth	1
Du Chaillu, P. B.	1
Durrant, S. D.	1
Elliot, D. G.	19
Emmons, L. H.	1
Findley, J. S.	1
Garcia-Perea, R.	1
Gardner, A. L.	2
Gardner, M. C.	6
Geoffroy, E.	1
Gill, T.	6
Glass, B. P., and R. C. Morse	1
Goldman, E. A.	295
Goldman, E. A., and M. C. Gardner	2
Goldman, E. A., and R. Kellogg	10
Goode, G. B.	1
Goodwin, G. G.	4
Grubb, P.	1
Hahn, W. L.	1
Hall, E. R.	8
Hall, E. R., and E. L. Cockrum	1

Author	Total
Hamilton, W. J., Jr.	3
Handley, C. O., Jr.	25
Handley, C. O., Jr., and K. C. Ferris	4
Handley, C. O., Jr., and L. K. Gordon	2
Handley, C. O., Jr., and E. Mondolfi	1
Handley, C. O., Jr., and R. H. Pine	1
Hardy, R.	1
Harlan, R.	1
Hatfield, D. M.	3
Hayden, F. V.	1
Heaney, L. R.	1
Helgen, K. M., L. E. Helgen, and D. E. Wilson	1
Heller, E.	153
HersHKovitz, P.	13
Hollister, N.	110
Howell, A. B.	21
Howell, A. H.	92
Hubbard, C. A.	1
Hutterer, R., and D. C. D. Happold	1
Jackson, H. H. T.	40
Jameson, E. W., Jr.	1
Jameson, E. W., Jr., and G. S. Jones	2
Johnson, D. H.	10
Johnson, D. H., and J. K. Jones Jr.	4
Jones, J. K., Jr.	1
Jones, J. K., Jr., and D. H. Johnson	1
Kalko, E. K. V., and C. O. Handley Jr.	1
Kellogg, R.	10
Kellogg, R., and E. A. Goldman	2
Kelson, K. R.	2
Kennicott, R.	4
Kloss, C. B.	19
Koopman, K. F.	1
Krutzsch, P. H.	1
Lazell, J. D.	1
LeConte, J.	10
Long, C. A.	2
Lydekker, R.	1
Lyon, M. W., Jr.	132
Mann, G.	3
Mearns, E. A.	82
Medway, L.	3
Merriam, C. H.	658
Miller, G. S., Jr.	485
Miller, G. S., Jr., and G. M. Allen	3
Miller, G. S., Jr., and N. Hollister	37
Miranda-Ribeiro, A. de	1
Moore, J. C.	2
Moore, J. C., and G. H. H. Tate	1
Moratelli, R., and D. Dias	1
Moratelli, R., A. L. Gardner, J. A. De Oliveira, and D. E. Wilson	1

(Continued)

TABLE B1. (Continued)

Author	Total
Moratelli, R., and D. E. Wilson	1
Murie, O. J.	1
Musser, G. G., and L. K. Gordon	1
Musser, G. G., and C. Newcomb	1
Nelson, E. W.	63
Nelson, E. W., and E. A. Goldman	100
Osgood, W. H.	90
Packard, R. L.	1
Paradiso, J. L.	4
Patterson, B. D.	1
Peale, T. R.	12
Perrin, W. F.	1
Peterson, R. L., and J. R. Tamsitt	1
Petter, F.	1
Phillips, C. J.	2
Pine, R. H.	6
Preble, E. A.	18
Prentiss, D. W., Jr.	1
Ranck, G. L.	20
Rausch, R.	1
Ray, J. C., and R. Hutterer	1
Rehn, J. A. G.	3
Rhoads, S. N.	1
Rice, D. W.	1
Rickart, E. A., and L. R. Heaney	1
Robbins, C. B.	2
Robinson, W., and M. W. Lyon Jr.	2
Rossolimo, O. R.	1
Roth, E. L.	1
Rothschild, W.	1
Sanborn, C. C.	1
Saussure, H. M.	1
Scammon, C. M.	1
Schantz, V. S.	10
Scheffer, V. B., and W. W. Dalquest	1
Schlitter, D. A.	1
Schlitter, D. A. and A. F. DeBlase	1
Schlitter, D. A., and H. W. Setzer	7
Schwartz, A.	4
Schwarz, E., and H. K. Schwarz	2
Setzer, H. W.	10
Setzer, H. W., and G. L. Ranck	1
Shamel, H. H.	23
Shipp-Pennock, M. A., W. D. Webster, and D. W. Freshwater	1
Shoemaker, H. W.	1
Shufeldt, R. W.	1
Simmons, N. B.	1
Slack, J. H.	1
Sody, H. J. V.	1

Author	Total
Sowerby, A. de C.	2
Spitzer, N. C., and J. D. Lazell Jr.	1
Stejneger, L.	2
Stephens, F.	3
Stone, W., and J. A. G. Rehn	1
Swanepoel, P., and D. A. Schlitter	1
Tate, G. H. H.	3
Tavares, V. Da C., A. L. Gardner, H. E. Ramirez-Chaves, and P. M. Velazco	1
Taylor, W. P.	4
Thomas, O.	11
Townsend, C. H.	11
Trouessart, E. L.	1
Trowbridge, A. H., and H. L. Whitaker	1
True, F. W.	38
Velazco, P. M., and A. L. Gardner	2
Velazco, P. M., A. L. Gardner, and B. D. Patterson	1
Vesmanis, I.	1
Vesmanis, I. E., and A. Vesmanis	10
Wagler, J. G.	1
Warren, E. R.	1
Webster, W. D.	1
Webster, W. D., and C. O. Handley Jr.	1
Weckerly, F. W., A. L. Gennaro, and T. L. Best	1
White, J. A.	1
Wied-Neuwied, M.	1
Wilson, D. E.	3
Woodhouse, S. W.	6
Woodman, N.	5
Woodman, N., and R. M. Timm	1
Yensen, E.	1
Young, R. T.	1
Yourans, E.	1
Grand total	3,180

Appendix C

TABLE C1. Alphabetical list of collectors of type specimens. From the type collection database, which does not include data for specimens that were transferred to other collections or for those that should be in the collection but for which we have no record.

Collector	Total	Collector	Total
Abbott, J. F.	1	Bailey, B.	2
Abbott, W. L.	470	Bailey, H. H.	1
Abert	1	Bailey, V.	140
Adams, C. F.	3	Bailey, V., and B. H. Dutcher	7
Agersborg, G. S.	1	Bailey, V., and C. H. Merriam	2
Aggate and E. Heller	1	Bailey, V., and M. Surber	1
Akhurst, J.	1	Bailey, V., and F. Winthrop	6
Aldous, C. M.	1	Baird, S. F.	10
Alexander, W. H.	1	Baker, A. B.	5
Allen, C. A.	6	Baldwin, W. P.	1
Allen, J. A.	1	Ball, E. F.	1
Amory, C.	1	Barber, C.	1
Anderson, E.	1	Barber, C. M.	3
Anderson, G. S.	1	Barber, G.	1
Anderson, H.	1	Barker, J. E.	1
Andrews, R. C.	2	Barnston, G.	1
Angle, J. P., and D. Bridge	1	Bartsch, P.	3
Anthony, A. W.	13	Bates, F. R.	1
Anthony, H. E.	12	Bates, G. L.	2
Anthony, R. G.	1	Baxter, C. W.	1
Arata, A. A., and M. E. Thomas	2	Beach, T. C.	1
Armstrong, F. B.	6	Beccari, O.	1
Aschemeier, C. R.	1	Beckwith, P.	2
Ashcraft, C. E.	1	Bee, J. W.	1
Attwater, H. P.	2	Belding, L.	2
Axelson, E. M.	1	Bendire, C. E.	3
Ayres, W. O.	1	Benedict, J. E.	1
Badger, G. B.	1	Benson, G. M.	1
Bailey, A. M., and R. J. Niedrach	2	Berg, W. E.	1

(Continued)

TABLE C1. (Continued)

Collector	Total	Collector	Total
Bergen, P. D.	1	Cook, O. F.	1
Bergh, H. O.	1	Coolidge, D.	3
Berlandier, J. L.	4	Cooper, J.	2
Bicego	1	Cooper, J. G.	8
Birdseye, C.	7	Cooper, S.	1
Birt, L. F. H.	1	Cooper, W.	1
Bischoff, F.	2	Cope, E. D.	1
Bloomquist, J.	1	Cory, C. B.	1
Boettcher, F. L. J.	2	Couch, D. N.	4
Booth, E. S.	2	Couch, L. K.	1
Boyle, C. C.	1	Coues, E.	7
Boynton, C. L.	1	Cox, W. T.	1
Branch, H. S.	6	Crawford, S. W.	1
Bretherton, B. J.	6	Cross, C. R.	1
Brewer, T. M.	4	Cunningham, B. L.	3
Briceño Gabaldon, S.	2	Currie, R. P.	6
Brimley, C. S.	1	Dalby, P., and F. Welling	1
Brooks, A. C.	1	Dall, W. H.	4
Brown, H.	1	Dalquest, W. W.	3
Brown, L. N.	1	Darbey, E. W.	1
Brown, W. L.	3	Davidson, G.	1
Brune, F.	1	Dawson, J.	1
Bryant, W. E.	2	De la Barrera, J. M.	1
Bunch, J. R.	1	de la Escalera, M. M.	1
Bunnell, A. S.	1	De Weese, D.	2
Burnam, B.	1	Dealy, J. M.	1
Busck, A.	3	Deignan, H. G.	3
Byers, G. W.	1	Delong, W. F.	1
Callahan, J.	2	Deming, O. V.	1
Cantwell, G. G.	11	Derickson, S. H.	1
Carey, J.	1	Derry, C. W.	1
Carriker, M. A.	1	Dietz, R. F.	1
Carson, R. E.	1	Dippie, G. F.	1
Cary, M.	23	Dixon, T. A.	1
Cassel, J. F., and R. M. Roecker	2	Doane, E.	1
Caton, J. D.	1	d'Oca, R. M.	2
Catt, C.	3	Dow, J. M.	1
Cavileer, C.	2	Dozier, H. L.	1
Celestino, A., and M. Canton	1	Drexler, C.	21
Chanler, W. A.	1	Drury, W.	1
Chanler, W. A., and L. von Hohnel	2	Du Chaillu, P. B.	1
Chapman, J. A.	1	Duges, A.	1
Chatelain, H.	1	Dutcher, B. H.	7
Clark, E.	1	Edson, C. F.	1
Clark, J. H.	10	Edwards, E. H.	2
Cluff, H. A.	2	Edwards, M. G.	1
Cole, R. E.	1	Edwards, V. N.	1
Collector unknown	45	Ehrhardt, H.	1
Comeau, N. A.	1	Eisen, G.	1

Collector	Total	Collector	Total
Elbel, R. E.	1	Graham, D. C.	5
Elbel, R. E., and B. Lekagul	1	Grasshoff, W.	1
Emmet, H., C. Emmet	1	Gray, R. W.	1
Emmons, G. T.	1	Grayson, A. J.	2
Emmons, L. H.	1	Grebnitzky, N.	2
Enevoldsen, F. E.	2	Green, E. C.	2
Engelmann, G.	1	Green, M. M.	2
Erdis, E. C.	2	Greenhall, A. M.	1
Evermann, B. W.	1	Grinnell, G. B.	1
Fairie, J.	1	Guesde, L.	1
Fannin, J.	1	Guthrie, L. J.	5
Farley, J.	1	Halloran, A. F.	1
Fast, E. E.	1	Hamilton, W. J.	2
Fea, L.	2	Hammond, J. F.	1
Feilner, J.	1	Hammond, W. A.	2
Ferry, J. F.	1	Handley, C. O., Jr.	6
Finley, C. O., and J. Z. Means	1	Handley, C. O., Jr., and B. R. Feinstein	4
Fisher, A. K.	21	Handley, C. O., Jr., and E. P. Nelson	1
Fisher, R. T.	1	Handley, C. O., Jr., and D. I. Rhymer	1
Fisher, W. K.	10	Handley, C. O., Jr., and M. Varn	1
Fisk, J. W.	1	Hanna, M. A.	1
Flemming, G.	2	Hansen, C.	1
Foster, W. T.	5	Hardisty, W. L.	1
Fox, C.	1	Hardisty, W. S.	1
Frakes, W.	1	Hardy, R.	1
Frazier, M. A.	1	Hartt, C. F.	1
Funcke, E. W.	1	Hasselborg, A.	2
Funk, J.	1	Hastrup, O.	1
Gabb, W. M.	12	Hatcher, J. B.	1
Gabrielson, I. N.	1	Hayden, F. V.	9
Gale, D.	2	Hayes, T.	1
Garbe, E.	1	Hayward, B. J.	1
Gardner, A. L.	6	Heaney, L. R.	1
Gaumer, G. F.	1	Hearst, M. G.	3
Gaut, J. H.	13	Heller, E.	97
Gaylord, H. A.	3	Henry, C. J.	1
Geest, J. C.	1	Henry, I. B.	3
Gellineau, P.	1	Henshaw, H. W.	2
Gibbs, G.	1	Herndon, W. L.	1
Gill, M.	1	Herrera, A. L.	1
Gilpin, J. B.	1	Herskovitz, P.	11
Glass, B. P.	1	Hill, G.	1
Goes, A.	1	Hollister, N.	23
Goldman, E. A.	125	Hollister, N., and C. D. Walcott	3
Goldman, L. C.	9	Holt, E. G.	2
Goldman, L. J.	14	Holzner, F. X.	3
Golsan, L. S.	2	Holzworth, J. M.	1
Gordon, A. L.	1	Hoogstraal, H.	1
Goss, B. F.	1	Horikawa, Y.	1
Goussard, S. W.	2	Hose, C.	1
Graetz, E.	1	Hose, E., and C. Hose	3

(Continued)

TABLE C1. (Continued)

Collector	Total	Collector	Total
Howell, A. H.	14	Kloss, C. B.	25
Howland, H. S.	1	Knudsen, V.	1
Hoy, C. M.	2	Komarek, E. V.	1
Hoy, P. R.	3	Komarek, R.	1
Hrdlicka, A. F.	1	Kreutzfeldt, F.	3
Hubbard, C. A.	1	Kreutzfeldt, F., and E. G. Beckwith	1
Hubbs, C. L.	1	Krieger, H. W.	1
Hubrick, J. P.	1	Lainson, R.	1
Humphreys, J. W.	1	Lambert, C. A.	2
Hurst, J.	1	Landberg, R. L.	1
Hutton, W.	1	Lawrence, W. H.	2
Hyland, J.	1	Lazell, J. D.	1
Ingersoll, J. C.	1	LeConte, J. E.	9
Iqbal, M.	1	LeConte, J. L.	1
Jackson, H. H. T.	9	Leigh, R.	1
Jackson, R. T.	1	Lemmer, F.	1
Jackson, R. W.	1	Leonard, G.	1
Jackson, W. B.	1	Lewis, J. B.	4
Jameson, E. W., Jr.	2	Ligon, J. S.	1
Jennings, A. H.	1	Lilly, B. V.	4
Jewett, S. G.	5	Lindsay, D. M.	1
Johnson, A.	1	Llewellyn, L.	1
Johnson, D. H.	6	Lloyd, W.	8
Johnson, D. H., and O. A. Muennink	1	Long, C. A., and J. E. Long	1
Johnson, J.	1	Loring, J. A.	87
Johnson, W. R.	1	Loring, J. A., and E. Heller	1
Johnston, M. A.	1	Lotore, E.	1
Johnstone, E., and F. Johnstone	1	Loukashkin, A. S.	1
Jones, C.	1	Loveridge, A.	1
Jones, C. F., W. N. Collins, and R. Carder	1	Luckey, D. H.	1
Jones, G. S.	1	Lyman, T.	1
Jones, J. K., Jr.	1	Lynn, W. G.	1
Jones, J. K., and W. D. Thomas	1	Lyon, M. W., Jr., and W. Robinson	1
Jordan, D. S.	1	MacFarlane, R.	5
Jouy, P. L.	3	Mackay, W. G., and G. F. Dippie	3
Kaegi, D. N.	2	Mackie, D. B.	3
Kalko, E. K. V.	1	MacTavish, W.	1
Keays, H. H.	1	Maddren, A. G.	1
Keeler, C. A.	1	Malaga-Alba, A.	1
Keen, J. H.	5	Malleis, H.	2
Keenan, C. M.	1	Maltby, H. T.	1
Kellogg, R.	2	Manigault, G. E.	1
Kennerly, C. B. R.	5	Mann, G.	3
Kennicott, R.	6	Mansell, F.	1
Kent, W. R.	2	March, W. T.	2
Kenyon, K. W.	1	Markham, B. J.	1
Kidder, J. H.	1	Marsh, C. H.	1
Kleineidam, P.	1	Marshall, W. H.	11
Klinikowski, R. F.	1	Martenson, M.	1

Collector	Total	Collector	Total
Martin, M. E.	1	Page, T. J.	2
Matson, J. O., W. Bulmer, and R. P. Eckerlin	1	Palache, C.	1
Matson, J. O., and N. Woodman	1	Palmer, E.	1
Maynard, C. J.	1	Palmer, T. S.	10
McCarthy, C. S.	1	Palmer, T. S., and C. A. Keeler	1
McCormick, L. M.	1	Palmer, T. S., and E. W. Nelson	1
McDonough, P.	2	Palmer, W.	3
McElroy, C.	1	Palmer, W., and J. H. Riley	2
McGee, W. J.	1	Palmer, W. J.	1
McGregor, R. C., and A. Celestino	5	Parker, S.	1
McGuire, G. M.	1	Patterson, B. D.	1
McGuire, J. A.	1	Paulson, D. R.	1
McIlhenny, E. A.	1	Pavlof, W.	1
McLellan, J. E.	15	Peale, T. R.	2
Mead, J. G., and G. L. Carsten	1	Percival, A. B.	3
Mearns, E. A.	79	Perrygo, W., and C. Lingeback	1
Mearns, E. A., and F. X. Holzner	26	Perrygo, W. M., and H. J. Cole	1
Menelick, K. O.	1	Peters, J. L.	1
Merriam, C. H.	12	Peterson, O. A.	6
Merriam, C. H., and V. Bailey	25	Philip, H.	1
Merriam, C. H., and W. B. Devereux	1	Phillips, C. J.	2
Merriam, C. H., and E. W. Nelson	1	Pine, R. H.	3
Merrill, J. C.	2	Pinheiro, F. D.	1
Miles, M.	1	Piper, S. E.	3
Miller, F. W.	2	Piper, W. F., and W. J. Hamilton	1
Miller, G. S., Jr.	2	Pitcher, J.	1
Mitchell, J. E.	1	Poilane, E.	1
Mitchell, J. W.	2	Pollard, R. J.	1
Mollhausen, H. B.	1	Poole, A. J.	1
Moore, A. W.	4	Potts, J.	1
Moore, H. F.	1	Preble, A. E.	2
Morrison, J. P. E.	2	Preble, E. A.	21
Morse, E. S.	1	Preble, E. A., and A. E. Preble	3
Moses, M.	1	Priour, J. M.	2
Mullen, J.	1	Rabor, D. S.	2
Mumford, R.	1	Radford, H. V.	1
Murdoch, J.	2	Ragsdale, G. H.	2
Murie, O. J.	3	Rainey, P. J.	5
Murray, A. C.	1	Ranck, G. L.	15
Nelson, E. W.	128	Ranck, G. L., and J. H. Shaw	3
Nelson, E. W., and E. A. Goldman	342	Rausch, R.	1
Neumann, R.	2	Raven, H. C.	56
Newberry, J. S.	2	Ray, J. C.	1
Niceforo, Maria	1	Ray, P. H.	3
Norman, H. L.	1	Rea, A.	1
Norton, G. F.	2	Reed, H. S.	1
Oberholser, H. C.	1	Rice, D. S.	1
Osgood, W. H.	26	Richardson, E. P.	1
Osgood, W. H., and E. Heller	5	Richmond, C. W.	7
Osgood, W. H., and A. G. Maddren	2	Rickart, E. A.	1
Owens, J. T.	1	Riley, J. H.	3

(Continued)

TABLE C1. (Continued)

Collector	Total	Collector	Total
Rindsfoos, W.	1	Smith, L. B.	1
Risser, A. C.	1	Smith, T., and G. Geddis	1
Ritter, W. E.	1	Smith, W. G.	1
Robb, M. L.	1	Smith, W. L.	1
Robbins, C. B.	2	Smithsonian Venezuelan Project	12
Robbins, L. W.	5	Soriano, P.	1
Robinson, W.	6	Sowerby, A. de C.	23
Robinson, W., and M. W. Lyon Jr.	3	Spaulding, W. H.	1
Roecker, R. M.	1	Spear, J. C.	1
Rogers, A.	1	Spitzer, N. C.	1
Roosevelt, K.	8	Spreadborough, W.	1
Roosevelt, T.	8	Steere, J. B.	6
Roth, E. L.	1	Stejneger, L.	8
Rothrock, J. T.	1	Stejneger, L., and C. W. Richmond	2
Rothrock, J. T., and H. W. Henshaw	1	Stejneger, T.	2
Rubio, L. G.	1	Stephens, F.	21
Ruckbeil, W.	1	Stephenson, W. J.	1
Ruffin, J. N.	1	Stevenson, D. H.	2
Rungius, C.	1	Stewart, H. A., and S. E. Piper	1
Samuels, E.	3	Stewart, J. T.	1
Sartorius, C.	4	Stimpson, W.	2
Saunders, D. A.	1	Stock, A. D.	1
Savage, W. G.	2	Streator, C. P.	66
Scammon, C. M.	4	Sturgis, R. S.	2
Scheffer, T. H.	1	Sturgis, R. S., and W. H. Hazlette	1
Scheffer, V. B.	1	Suckley, G.	5
Schmid, P.	3	Sullivan, J.	3
Schmidt, F. J. W.	1	Sumichrast, F.	5
Schott, A.	8	Surber, M.	1
Schwartz, A., and E. L. Blich	1	Swanson, C.	1
Schwenk, E. A.	1	Tabb, R. H.	1
Sealander, J. A.	1	Taylor, A. S.	2
Seton-Thompson, E.	1	Taylor, W. P.	4
Setzer, H. W.	10	Terzenbach, B., and G. Medina	1
Sharp, G.	1	Thayer, A. H.	1
Sheldon, C.	11	Thomas, G. H.	10
Sheldon, C., and M. May	1	Thomas, I.	1
Sheldon, H. H.	2	Thomas, M. E., and A. A. Arata	1
Shinn, C. H.	1	Thomas, R.	1
Shiras, G.	1	Thompson, J.	1
Shive, J.	1	Thompson, R., and C. Thompson	1
Shufeldt, P. W.	2	Thompson, R. J.	2
Shufeldt, R. W.	1	Thompson, Z.	2
Shumard, G. G.	1	Thornton, W. A.	2
Simpson, W. W.	3	Thurber, E. C.	1
Small, J.	1	Tipton, V. J.	1
Smith, C. H.	1	Tison, W. L.	1
Smith, F. T.	2	Todd, A.	1
Smith, H. M.	3	Toney, L. C.	1

Collector	Total	Collector	Total
Townsend, C. H.	13	Weems, F. C.	1
Traill, W. E.	2	Weiss, M.	1
Trapier, P.	1	Weldon, R. S.	1
Traub, R.	1	Wesner, W.	1
Traub, R., and D. Koelle	1	Wetherby, A. G.	1
Trook, G. H.	1	Wetmore, A.	5
Trowbridge, W. P.	9	Whitaker, H. L.	1
True, F. W., and D. W. Prentiss Jr.	1	White, J. J.	4
Tuck, R. G.	4	White, W. S.	1
Turner, B. B.	1	Wilder, G. D.	1
Turner, H. J. A.	3	Williams, H. E.	1
Turner, L. M.	11	Wilson, D. E.	3
Tuttle, A. L.	1	Wilson, L. M.	1
Ulrich, F.	1	Winthrop, F., and B. Bailey	1
Underwood, C. F.	11	Wittkugel, E.	2
United States Exploring Expedition	4	Wood, D., Jr.	1
U.S. Fish Commission "Fish Hawk"	2	Wood, I.	1
Vaden, R. E.	3	Woodhouse, S. W.	5
Van Dyck, W. T.	1	Woolfe, H. D.	1
Van Patten, C. H.	1	Wulsin, F. R.	7
Varden, J.	1	Wurdemann, G.	1
Vaughan, T., and P. Vaughan	3	Wyman, L. E.	3
Vollum, E. P.	1	Xantus, J.	6
Wailes, B. L. C.	1	Yensen, E.	1
Wallace, J.	1	Young, R. T.	5
Waller, D. W.	1	Yourans, E.	1
Warmbath, J. S.	1	Zeledon, J. C.	7
Warren, E. R.	2	Zikan	1
Wayne, J.	1	Zollikofer, E. H.	2
Webster, W. D.	2	Grand total	3,209
Weckerly, F. W.	1		

Appendix D

TABLE D1. Number of types described listed by decade. From the type collection database, which does not include data for specimens that were transferred to other collections or for those that should be in the collection but for which we have no record.

Decade	Total
1800s	1
1820s	1
1830s	8
1840s	13
1850s	81
1860s	36
1870s	35
1880s	62
1890s	500
1900s	875
1910s	768
1920s	158
1930s	305
1940s	105
1950s	68
1960s	53
1970s	39
1980s	31
1990s	21
2000s	10
2010s	10
Grand total	3,180

Appendix E

TABLE E1. Summary of specimens reported on in this type catalog series. The complete series contains a total of 3,187 names and 3,269 specimens.

Catalog	Holotypes	Lectotypes	Neotypes	Syntypes (No. specimens)	New since Poole and Schantz (1942)
Fisher and Ludwig (2012)	798	14	1	7 (30)	41
Fisher and Ludwig (2014)	905	16	2	8 (48)	110
Fisher and Ludwig (2015)	789	26	4	11 (22)	128
This volume	582	16	1	7 (15)	39
Total	3,074	72	8	33 (115)	318

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grebnitzkii, 63

SUMMARY OF REQUIREMENTS FOR SMITHSONIAN CONTRIBUTIONS SERIES

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ABSTRACTS must not exceed 300 words.

TEXT must be prepared in a recent version of Microsoft Word; use a Times font in 12 point for regular text; be double spaced; and have 1" margins.

REQUIRED ELEMENTS are title page, abstract, table of contents, main text, and references.

FIGURES should be numbered sequentially (1, 2, 3, etc.) in the order called out; have components lettered consistently (in size, font, and style) and described in captions; include a scale bar or scale description, if appropriate; include any legends in or on the figure rather than in a caption. Figures must be original and submitted as individual TIF or EPS files.

FIGURE FILES must not be embedded in the main text. Resolution for art files must be at least 300 dpi

for grayscale and color images, and at least 1200 dpi for line art. Color images should be requested only if required.

TAXONOMIC KEYS in natural history papers should use the aligned-couplet form for zoology. If cross referencing is required between key and text, do not include page references within the key but number the keyed-out taxa, using the same numbers with their corresponding heads in the text.

SYNONYMY IN ZOOLOGY must use the short form (taxon, author, year:page), with full reference at the end of the paper under "References."

REFERENCES should be in alphabetical order, and in chronological order for same-author entries. Each reference should be cited at least once in main text. Complete bibliographic information must be included in all citations. Examples of the most common types of citations are provided on SISP's "Author Resources" page at www.scholarlypress.si.edu.