

Chelmala Srinivasulu  
Bhargavi Srinivasulu

# South Asian Mammals

Their Diversity, Distribution, and Status

 Springer

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*Sally Walker*  
*for catalysing conservation in South Asia*

*Aditya Srinivasulu*  
*for understanding, affection, and concern,*  
*and also bearing with us*

*In memory of Dad*



# Preface

The last decade has witnessed a tremendous increase in the knowledge about the mammalian diversity of the world, owing much to the increased awareness (by both mammalogists and others), intensive surveys (backed by modern technologies), and advances in the application of molecular techniques. The Global Mammal Assessment, coordinated by the International Union for Nature Conservation, resulted in the conservation assessment for all 5,487 species of known marine and land mammals. This comprehensive assessment, involving over 1,700 experts from all over the world, indicates that a quarter of the known mammalian diversity of the world is under threat of extinction and that the population of half of the species of mammals is declining. At the regional scale, the same holds true.

The dearth of information and expertise in the South Asia has been long felt and each country within the region has initiated steps to fill this lacunae. Our motivation for this book comes from a desire to provide a comprehensive information of all the extant and extinct (since 1500 AD) mammals of South Asia with emphasis on their distribution. We started this project with volant and non-volant small mammals of South Asia in 2002 and later included other groups. This book is aimed as a reference tool to help researchers, field biologists, decision makers, governments (both federal and local), students and lay person to understand the rich diversity, taxonomy, distribution, and status of the mammalian species present in Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. There are but a few references available that detail the mammalian diversity in each of these countries but none of them provides the provincial level distribution at the regional scale on the whole.

Since the publication of the Third Edition of the *Mammal Species of the World*, edited by D.E. Wilson and D.M. Reeder in 2005, many new species have been described and new hypotheses for classifications have been proposed. We have, at

best, incorporated recent changes in this work. Due to the dynamic and fluid nature of taxonomy, more changes are inevitable and we plan to update and incorporate them in future editions. We hope that this book serves its purpose as a useful reference for both the neophytes and the experts alike.

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# Chapter 1

## Introduction

### 1.1 Background

About a century back, the first ever all comprehensive appraisal of mammals of the world was brought out by Trouessart (1897–1899, 1904–1905). Since then numerous works have been published both at the global and at the regional levels. Among the former, the most comprehensive and referred works include the “Mammals of the World” by E.P. Walker and his colleagues (first published in 1964, now running sixth edition, see Nowak 1999); “A World List of Mammalian Species” by G.B. Corbet and J.E. Hill (first published in 1980, now running third edition, see Corbet and Hill 1980, 1986, 1991); and the “Mammal Species of the World: A Taxonomic and Geographic Reference” first by Honacki and his colleagues (published in 1982; running its third edition by D.E. Wilson and D.M. Reeder, see Honacki et al. 1982; Wilson and Reeder 1993, 2005). At the regional level, many works have been published and the major ones that concern South Asia include the “Checklist of the Palearctic and Indian Mammals” by J.R. Ellerman and T.C.S. Morrison-Scott (published in 1951, see Ellerman and Morrison-Scott 1951) and “Mammals of the Indomalayan Region: A Systematic Review” by G.B. Corbet and J.E. Hill (published in 1992, see Corbett and Hill 1992).

The current world list of mammals includes nearly 5,416 species in over 1,229 genera in 29 orders (Wilson and Reeder 2005). A recent work lists 5,487 species of mammals (excluding *Homo sapiens*) (Schipper et al. 2008). The composition of mammal species in different orders is provided in Table 1.1.

The above data clearly indicates that the current knowledge of mammalian species diversity is in dynamic stage as recent taxonomic studies are resulting in an increase in number of species known to us. A comprehensive checklist of mammals of South Asia has been lacking and other works relating to this region are outdated. The present work attempts to bridge the gap of knowledge on mammalian diversity of the South Asia including eight countries, namely, Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.

**Table 1.1** Diversity of mammal species of the world

	After Wilson and Reeder (2005)	After Schipper et al. (2008)	Remarks
Class Mammalia	5,416	5,487	Change of 71 species
Order Monotremata (2 families)	5	5	No change in species numbers
Order Didelphimorphia (1 family)	87	95	Eight species added
Order Paucituberculata (1 family)	6	6	No change in species numbers
Order Microbiotheria (1 family)	1	1	No change in species numbers
Order Notoryctemorphia (1 family)	2	2	No change in species numbers
Order Dasyuromorphia (3 families)	71	74	Three species added
Order Paramelemorphia (3 families)	21	22	One species added
Order Diprotodontia (11 families)	143	146	Three species added
Order Afrosoricida (2 families)	51	54	Three species added
Order Macroscelidea (1 family)	15	16	One species added
Order Tubulidentata (1 family)	1	1	No change in species numbers
Order Hyracoidea (1 family)	4	5	One species added
Order Proboscidea (1 family)	3	2	Decrease in one species
Order Sirenia (2 families)	5	5	No change in species numbers
Order Cingulata (1 family)	21	21	No change in species numbers
Order Pilosa (4 families)	10	10	No change in species numbers
Order Scandentia (2 families)	20	20	No change in species numbers
Order Dermoptera (1 family)	2	2	No change in species numbers
Order Primates (15–17 families)	376	414	Schipper et al. (2008) include family Callitrichidae and Paleopropithecidae; 38 species added
Order Rodentia (33 families)	2,277	2,255	Decrease in 22 species
Order Lagomorpha (3 families)	92	93	One species added

(continued)

**Table 1.1** (continued)

	After Wilson and Reeder (2005)	After Schipper et al. (2008)	Remarks
Order Eulipotyphla (5 families)	452	450	Schipper et al. (2008), includes both Order Erinaceomorpha and Soricomorpha of Wilson and Reeder (2005) in this Order; decrease in two species
Order Chiroptera (18 families)	1,116	1,152	36 species added
Order Pholidota (1 family)	8	8	No change in species numbers
Order Carnivora (15–16 families)	286	285	Schipper et al. (2008) includes family Prionodontidae; decrease in one species
Order Perissodactyla (3 families)	17	16	Decrease in one species
Order Cetartiodactyla (21 families)	324	329	Schipper et al. (2008) includes Order Cetartiodactyla that includes Order Artiodactyla (with 240 species in 10 families) and Order Cetacea (84 species in 11 families); five species added

## 1.2 Mammological Studies in South Asia

Carl Linnaeus (1701–1778, Swedish naturalist, founder of the current system of biological nomenclature), in the 10th edition of the *Systema Naturae* (Linnaeus 1758), had listed as many as 34 species of mammals from the Indomalayan region, and he certainly was not the first who collected the specimens from the region but relied on the collections made by travellers from Europe. The number of species known from the region, especially South Asia, increased during the late eighteenth century along with the development of the European trade routes and colonization of the region. Early nineteenth century witnessed sporadic collection surveys by Charles Belanger (1805–1881, French traveller in India in 1825) and Jean Baptiste Leschenault de la Tour (1773–1826, French collector attached to Paris Museum collected in India and Sri Lanka between 1817 and 1822). Among the other French naturalists and collectors were Pierre Medard Diard (1795–1863, travelled with Alfred Duvaucel in India) and Alfred Duvaucel (1796–1824, travelled with Perre Medard Diard in India, and later made extensive collection in northeastern India). Taking cue from the French interest in natural history of the region, Lord Wellesley, Governor General of Bengal (Presidency of Fort William), set up an institution for the study of natural history of the region by establishing a

college at Fort William with an attached natural history establishment at Barrackpore where animals and birds from all parts of the Company's territories were to be kept and studied. This establishment was under the charge of Dr. Francis Buchanan, and due to the negligence of the successor of Lord Wellesley, this establishment gradually came to an end.

Serious work on mammals of South Asia commenced only in the late nineteenth century through the works of Thomas Hardwicke (1756–1845, Major General by rank, Commander of the Bengal Artillery, Indian Army; collected and studied in Bengal region) (Hardwicke 1804, 1807, 1825a, b, 1827, 1828); Thomas Horsfield (1773–1859, American-born Geologist and Physician, Curator of the Museum of the East India Company, Calcutta) (Horsfield 1828, 1831, 1840, 1849, 1851, 1855, 1856); Brian Houghton Hodgson (1800–1894, British diplomat and official resident in Kathmandu between 1833 and 1843 who collected extensively in Nepal and Sikkim (Hodgson 1831a, b, 1833a, b, c, d, 1834a, b, c, d, 1835a, b, c, d, e, 1836a, b, c, d, e, f, 1837a, b, 1838, 1839, 1840a, b, c, d, e, f, g, h, 1841a, b, c, d, e, f, 1842a, b, c, 1843a, b, 1844, 1845, 1847a, b, c, d, e, f, g, h, i, 1848a, b, c, d, 1849, 1850a, b, 1851, 1855, 1857, 1858, 1863); John Edward Gray (1800–1875, Assistant (1824) and later Keeper (1840) of Zoology at British Museum, London; never collected in South Asia) (Gray 1825, 1830–1835, 1836, 1838, 1843, 1846, 1847, 1851, 1852, 1853, 1854, 1863, 1867, 1868, 1871, 1872); Edward Blyth (1810–1873), Curator (1842–1864) of the Museum of the Asiatic Society in Calcutta; collected and studied in Bengal, present day Northeast India and Bangladesh) (Blyth 1840, 1841a, b, c, d, e, 1842a, b, 1843, 1844, 1845a, b, 1846, 1847a, b, 1849, 1850, 1851a, b, 1852a, b, 1854, 1855a, b, c, d, 1858, 1859a, b, 1860, 1862a, b, c, 1863a, b, 1872, 1875); Thomas Caverhill Jerdon (1811–1875, Surgeon Major in Indian Army, also a naturalist; collected and studied in south India) (Jerdon 1867, 1874); Edward Fredrick Kelaart (1818–1860, Army Medical Service, Sri Lanka, also a naturalist, collected and studied in Sri Lanka) (Kelaart 1850a, b, c, 1851, 1852); John Anderson (1833–1900, Superintendent of the Indian Museum and Professor of Comparative Anatomy, Calcutta, between 1865 and 1886; also a naturalist and medical officer to on the British expeditions to Yunnan between 1867–1868 and 1875) (Anderson 1873, 1875, 1877, 1878, 1881); and William Thomas Blanford (1832–1905, Member of Geological Survey of India, co-founder of Indian Museum, Calcutta, and the Fauna of British India Publications; collected and surveyed in Bengal, India) (Blanford 1875, 1876, 1881, 1888, 1891). Excepting J.E. Gray, all others have collected and studied the specimens collected either by themselves or sent to them (including to J.E. Gray in British Museum, London) by other collectors including both amateurs and professionals alike amongst whom some noteworthy are J. Barbe (in Nicobars), Robert Henry Boyce (in Rajputana), Walter Elliot (in south Maratha), William Griffith (in NWFP and Assam), Josiah Marshall Heath (in Madras), Thomas Hutton (in Kandahar, Afghanistan, and Mussorie, India), John McClelland (in Assam), William Henry Sykes (in Deccan), Richard Samuel Tickell (in Orissa), E.L. Layard (in Sri Lanka), R.W. Frith (in northeast India) Col. A. Ward (in Kashmir), C.A. Crump (in Kashmir), C. Boden Kloss (in Andamans and Nicobars), and Col. R.C. Tytler (in Kumaun and Andamans).

Subsequent to W.T. Blanford's work on Indian mammals, a significant contribution to this field was made by Michael Rodgers Oldfield Thomas (1858–1929, Curator of mammals at British Museum (Natural History) from 1878, responsible for instigating the Mammal Survey of the Bombay Natural History Society) who studied and described many species of mammals from South Asia (Thomas 1920a, b, c, 1923a, b, c, d, 1924, 1926).

The first comprehensive work "Mammals of India" was brought out by Thomas Coverhill Jerdon in 1867 that described 242 species (Jerdon 1867, 1874). In 1884, Robert A. Sterndale published "Natural History of the Mammalia of India and Ceylon" that described 482 species (Sterndale 1884, also see Finn 1929). In 1881, a memorial signed by Charles Darwin, Sir Joseph Hooker, and other eminent persons of science was presented to the Secretary of State for India recommending that a series of volumes dealing with the fauna of British India should be published for which W.T. Blanford was appointed editor. "Mammalia" the first part of "The Fauna of British India" was published in 1888, followed by second part in 1891, authored and edited by W.T. Blanford including description of just over 400 species of mammals of the region (Blanford 1888, 1891).

It was during the late nineteenth century, exactly in 1883, the Bombay Natural History Society was established. The Society provided a means through which naturalist of the region could exchange their findings on a regular basis through its journal that was first published in 1886, continuously published excepting the World War years and presently running in its 105th volume. The journal has become an invaluable auxiliary to biological research in the region. At the end of 1911 or the beginning of 1912, C.A. Crump suddenly arrived in Bombay and offered his services to the Society. W.S. Millard, the then, Honorary Secretary of the Society called for an urgent meeting of the Society and engaged C.A. Crump as Society's collector and in April 1912 Crump started collecting in Khandesh, thus launching the Mammal Survey of India by the Bombay Natural History Society. The Mammal Survey continued till 1923 and resulted in collection of a vast number of specimens from the length and breadth of the British India (mostly including areas comprising all the countries in South Asia). Society's collectors and other members like C.A. Crump (collected in Khandesh, Darjeeling, Balochistan), R. Shankara Narayana Pillay (collected in Travancore), Philip Gosse (collected in Poona district and the Nilgiris), S.H. Prater (collected in Satara district and North Sind), and Charles McCann (collected in Palni Hills) contributed for the survey. The Mammal Survey resulted in the collection of more than 25,000 specimens, and the sorting and cataloguing was carried out at British Museum (Natural History), London, by R.C. Wroughton assisted by his brother-in-law T.B. Fry, who carried out the work after Wroughton died in 1921. R.C. Wroughton prepared most of the 55 reports, scientific results, and the "Summary of the results from the Indian Mammal Survey" (Wroughton 1912a, b, c, d, e, 1913, 1914, 1915a, b, c, d, 1916a, b, c, d, e, f, g, 1917a, b, c, 1918a, b, c, d, 1919a, b, 1920a, b, c, d, e, 1921a, b, c, d, e, f, g, h; also see Wroughton and Ryley 1913a, Ryley 1913b, c). Others like, Kathleen Ryley (Ryley 1913a, b, c, d, e, f), Oldfield Thomas (Thomas 1914a, b, 1915a, b, c, 1916, 1917, 1919b, 1920a, b, c, 1921a, b, c, d, 1922a, b, c, d, e, 1923a,

b, c, d, 1924, 1926, 1927; also see Thomas and Ryley 1913; Thomas and Wroughton 1916a, b, 1919), Martin A.C. Hinton (Hinton 1918, 1919a, b, 1920, 1922a, b, 1923a, b; also see Hinton and Fry 1923), J.P. Mills (Mills 1923), H.M. Lindsay (Lindsay 1926a, b, c, d, e, f, g, h, i), and T.B. Fry (Fry 1925, 1928, 1929), have also contributed to the “Mammal Survey.” The scientific results of the Mammal Survey were published in the *Journal of the Bombay Natural History Society* between 1912 and 1929 (Hinton 1918, 1919a, b, 1920, 1923a; Lindsay 1926c, 1929; Ryley 1913b, 1914; Thomas 1914a, b, 1915a, b, c, 1916, 1917, 1919b, 1920a, b, c, 1921a, b, c, d, 1922a, b, c, d, e, 1923a, b, c, d, 1924, 1926, 1927; Thomas and Ryley 1913; Thomas and Wroughton 1916a, b, 1919; Wroughton and Ryley 1913a, Wroughton 1917a, 1918a, 1920c, 1921e, f, g, h).

The “Indian Mammal Survey” not only advanced considerably the wealth of knowledge about the species diversity and distribution, but also resulted in discovery of many new taxa. The Survey also resulted in production of second volume of “Mammalia” of “The Fauna of British India” series with Part 1 on Primates and Carnivora (in part) in 1939 and Part 2 on Carnivora (remainder part) in 1941 (Pocock 1939, 1941). Subsequently, the third volume of “Mammalia” of “The Fauna of India” (rechristened so after India’s independence in 1947) in two parts dealt exclusively the rodent diversity (Ellerman 1961). Another major work by J.R. Ellerman and T.C.S. Morrison-Scott, the “Checklist of Palearctic and Indian Mammals” (Ellerman and Morrison-Scott 1951), also greatly benefitted with the findings resulting from the “Survey”.

Besides all these major works, other notes and books pertaining to natural history and distribution of mammals appeared from time to time. R.A. Sterndale’s “Natural History of the Mammalia of India and Ceylon” (Sterndale 1884; Finn 1929) and S.H. Prater’s “The Book of Indian Animals” (Prater 1948) are worth mentioning, especially the later work still remains the most comprehensive and extensively used reference book in South Asia.

Works on mammals continued, albeit sporadically, mainly by academia and scientist of the Zoological Survey of India since 1950s. Despite all progress, the information database in terms of knowledge regarding the species diversity, taxonomy, distribution range, population, and general ecology or biology was sparse for most mammals. This became evident during the Conservation Assessment and Management Plan Workshop on Indian Mammals held at Indian Institute of Science, Bangalore, in August 1997 (Molur et al. 1998). This information added the much required impetus to create databases on lesser known mammals by liaising with field biologists, researchers, academicians, and scientists of South Asia. This onerous task was taken up by the South Asian chapter of the Conservation Breeding Specialist Group of IUCN and Zoo Outreach Organization. A series of Conservation Assessment and Management Plan Workshops were conducted between 2000 and 2004 (Molur et al. 2002, 2003, 2005) that not only assessed the target mammal species but also provided the baseline database for the Global Mammal Assessment project initiated by the International Union for Conservation of Nature and Conservation International in collaboration with many institutions, non-governmental organizations, museums,

and universities from many countries of the world (Schipper et al. 2008; IUCN 2009).

In the recent years, the mammalian fauna within South Asia had been well documented and some of the country-wise works covering major mammal species include that of Habibi (2003) for Afghanistan, Roberts (2005a, b) for Pakistan, Alfred et al. (2002) and Menon (2003) for India, Shrestha (1997) for Nepal, Wangchuk et al. (2004) for Bhutan, deSilva (2008) for Sri Lanka, and Ahmed (2009) for Bangladesh. Gurung and Singh (1996) and Bahuguna and Mallick (2010) provide details of mammals found in Indian subcontinent.

### 1.3 Recent Phylogenetic Changes

The mammalian phylogeny and classification is still based basically on the ordinal system of relationships proposed and evolved from major classical works (Gregory 1910; Simpson 1945; McKenna 1975). With the ever-increasing availability of information on palaeontological, morphological, and molecular (nucleotide sequence data) aspects, the mammalian phylogeny has recently received extensive attention resulting in numerous repeated re-evaluations and revisions to resolve phylogenetic controversies and inconsistencies among morphological and molecular studies. Despite this breakthrough of understanding using modern techniques, several enigmas remain to be resolved.

According to the classical system, all living placental mammals were grouped into three generally accepted morphologically based supraordinal clades, namely, Ungulata [including the orders Hyracoidea (hyraxes), Sirenia (manatees and dugongs), Proboscidea (elephants), Perissodactyla (horses, tapirs, and rhinos), Artiodactyla (camels, pigs, cows, and pigs), Cetacea (whales and porpoises), and variably, Tubulidentata (aardvarks)], Archonta [including orders Chiroptera (bats), Dermoptera (flying lemurs), Primates (humans, apes, and monkeys), and Scandentia (tree shrews)], and Anagalida [including Rodentia (rats, mice, and guinea pigs), Lagomorpha (rabbits, hares, and pikas), and Macroscelidea (elephant shrews)]. The current molecular classification recognizes three novel hypothetical nucleotide sequence-based supraordinal clades, namely, Afrotheria [including the orders Proboscidea (elephants), Sirenia (manatees and dugongs), Hyracoidea (hyraxes), Tubulidentata (aardvarks), Afrosoricida (golden moles and tenrecs), and Macroscelidea (elephant shrews)], Laurasiatheria [including the orders Eulipotyphla (hedgehogs, moles, and shrews), Chiroptera (bats), Perissodactyla (horses, tapirs, and rhinos), Cetartiodactyla (camels, pigs, cows, hippos, whales, and porpoises), Carnivora (dogs, bears, and cats), and Pholidota (pangolins)], and Euarchontoglires [including the orders Rodentia (rats, mice, and guinea pigs), Lagomorpha (rabbits, hares, and pikas), Scandentia (tree shrews), Dermoptera (flying lemurs), and Primates (humans, apes, and monkeys)] (Novacek 1992).

One of the major changes that the recent works brought in is related to the phylogeny of insectivores (Lipotyphlans) including shrews, moles, solenodons,

tenrecs, golden moles, hedgehogs, and gymnures. Earlier, this order had been divided into two subgroups, namely, Erinaceomorpha (hedgehogs and gymnures) and Soricomorpha (other insectivores). Molecular studies (see Springer et al. 1997) suggest that the order Insectivora might not be monophyletic group, especially some forms like golden moles might be more closely related to African endemic mammals than other insectivores, thus the species of order Insectivora were reassigned into two new orders, namely Afrosoricida (African Insectivores) and Eulipotyphla (Core Insectivores) (Waddell et al. 1999). We retain the older classification, following Wilson and Reeder (2005), for clarity in this work and include all known insectivores of South Asia in Orders Erinaceomorpha and Soricomorpha.

The second major change that the recent works brought in is related to the phylogeny and relationship between the Artiodactyls (odd-toed ungulates) and Cetaceans (whales and porpoises). Recent molecular studies suggest that these two orders have close relationship, thus need to be clubbed together as order Cetartiodactyla (Agnarsson and May-Collado 2008; Spaulding et al. 2009). Studies on fossil cetaceans showed the transition of cetaceans from amphibious quadrupeds to fully aquatic forms some 34–54 million years ago (Thewissen 1998). Cladistic analyses based on molecular data have shown that Cetaceans appeared within Artiodactyla and also supported a sister-taxon between cetaceans and hippos (Nikaido et al. 1999; Shimamura et al. 1999). This hypothesis was further supported by the presence of Short INterspersed Elements (SINEs). Recent discovery of heel bones (astragali) of ancestral cetaceans (Gingerich et al. 2001; Thewissen et al. 2001) and studies by Geisler and Uhen (2003) showed morphological similarities between whales and hippopotami in particular and cetaceans and artiodactyls in general. Morphological and molecular data support this relationship (Price et al. 2005; Geisler et al. 2007; Thewissen et al. 2007). Molecular evidence suggests that the cetaceans are deeply nested in Artiodactyls and along with hippopotamuses they form a monophyletic group. We retain the older classification, following Wilson and Reeder (2005), for clarity in this work and treat the artiodactyls and cetaceans under separate traditional orders.

# Chapter 2

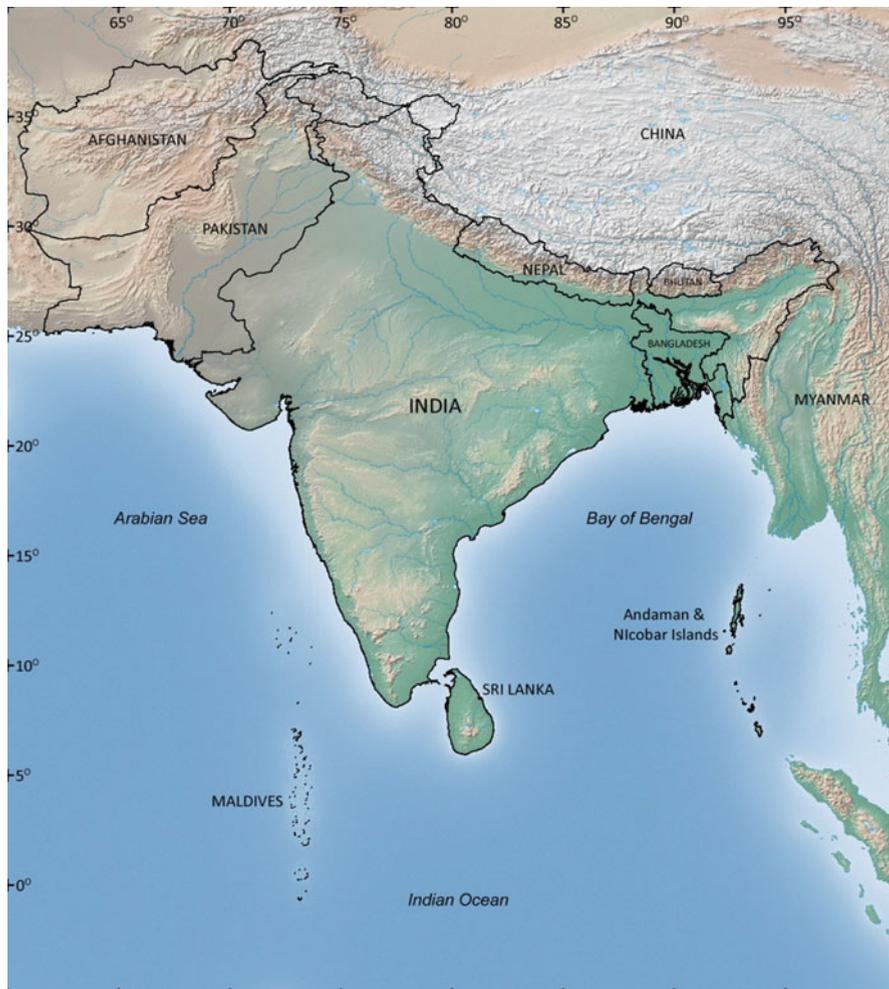
## South Asian Mammals

### 2.1 Analysis

The mammalian diversity found in South Asia (Fig. 2.1) includes 506 species in 215 genera in 14 orders which represents approximately 9.3% of the world's mammalian diversity (Table 2.1). The genetic diversity accounts for 19% of the world's diversity. The complete list of mammals of South Asia with their common names is given in Table 2.2.

India, the largest among the South Asian countries, has the maximum number of species recorded. As many as 426 species are known to be present in India. The other countries with species richness in descending order are Nepal (197 species), Pakistan (190 species), Bangladesh (134 species), Afghanistan (124 species), Sri Lanka (122 species), Bhutan (112 species), and Maldives (21 species) (Table 2.3). A few species are such that may possibly occur in a country but there are no confirmed records for their inclusion with confidence. This is perhaps for the reason that such species occur in the neighbouring countries either within South Asia or other countries bordering South Asian countries. Bhutan has the maximum of such doubtfully occurring species (57 species), followed by Bangladesh (15 species), Pakistan (5 species), Afghanistan (4 species), Nepal (4 species), India (1 species), and Sri Lanka (1 species). Some species of mammals have been exterminated due to various reasons in South Asia; these could be either regionally extinct from South Asia or locally extinct from any given country. Maximum extinct species are reported from Bangladesh (11 species), followed by Afghanistan (7 species), Pakistan (5 species), Bhutan (3 species), Nepal (3 species), India (2 species), and Sri Lanka (1 species). The lack of information on native species of Maldives impedes any inference to be drawn with respect to the current status of mammalian diversity existing on these islands.

The mammalian diversity of South Asia comprises more of terrestrial species compared to aquatic species (475 species vs. 31 species). Among the terrestrial species, the majority (332 species) is represented by small volant and non-volant



**Fig. 2.1** Map of South Asia, depicting countries covered in this work

species belonging to the orders Rodentia (rodents), Chiroptera (bats), Soricomorpha (shrews), Erinaceomorpha (hedgehogs), Lagomorpha (pikas and hares), Scandentia (tree shrews), and Pholidota (pangolins). The large mammals (143 species) include species belonging to Proboscidea (elephants), Primates (monkeys and gibbons), Carnivora (carnivores), Perissodactyla (odd-toed ungulates), and Artiodactyla (even-toed ungulates). Among the aquatic species, marine mammals are more diverse (30 species) compared to freshwater mammals (one species).

About a quarter (130 species) of the mammals are endemic to South Asia (Table 2.4). The highest endemism was in order Scandentia followed by orders

**Table 2.1** Diversity of mammal species of South Asia

Order/Family	In South Asia		After Wilson and Reeder (2005)	
	No. of genera	No. of species	No. of genera	No. of species
<b>Class Mammalia</b>	<b>215</b>	<b>506</b>	<b>1,229</b>	<b>5,416</b>
<b>Order Proboscidea</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>3</b>
Family Elephantidae	1	1	2	3
<b>Order Sirenia</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>5</b>
Family Dugongidae	1	1	2	2
<b>Order Scandentia</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>20</b>
Family Tupaiidae	2	3	4	19
<b>Order Primates</b>	<b>6</b>	<b>28</b>	<b>69</b>	<b>376</b>
Family Lorisidae	2	3	5	9
Family Cercopithecidae	3	23	21	132
Family Hylobatidae	1	2	4	14
<b>Order Rodentia</b>	<b>59</b>	<b>135</b>	<b>481</b>	<b>2,277</b>
Family Sciuridae	15	29	51	278
Family Gliridae	1	2	9	28
Family Dipodidae	4	6	16	51
Family Platacanthomyidae	1	1	2	2
Family Spalacidae	2	2	6	36
Family Calomyscidae	1	3	1	8
Family Cricetidae	9	18	130	681
Family Muridae	24	71	150	730
Family Hystricidae	2	3	3	11
<b>Order Lagomorpha</b>	<b>3</b>	<b>14</b>	<b>13</b>	<b>92</b>
Family Ochotonidae	1	9	1	30
Family Leporidae	2	5	11	61
<b>Order Erinaceomorpha</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>24</b>
Family Erinaceidae	2	5	10	24
<b>Order Soricomorpha</b>	<b>12</b>	<b>41</b>	<b>45</b>	<b>428</b>
Family Soricidae	10	39	26	376
Family Talpidae	2	2	17	39
<b>Order Chiroptera</b>	<b>44</b>	<b>131</b>	<b>202</b>	<b>1,116</b>
Family Pteropodidae	8	14	42	186
Family Rhinolophidae	1	20	1	77
Family Hipposideridae	4	16	9	81
Family Megadermatidae	1	2	4	5
Family Rhinopomatidae	1	3	1	4
Family Emballonuridae	2	6	13	51
Family Molossidae	3	4	16	100
Family Vespertilionidae <sup>a</sup>	24	66	48	407
<b>Order Pholidota</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>8</b>
Family Manidae	1	2	1	8
<b>Order Carnivora</b>	<b>34</b>	<b>69</b>	<b>126</b>	<b>286</b>
Family Canidae	3	9	13	35
Family Mustelidae	10	18	22	59
Family Ailuridae	1	1	1	1

(continued)

**Table 2.1** (continued)

Order/Family	In South Asia		After Wilson and Reeder (2005)	
	No. of genera	No. of species	No. of genera	No. of species
Family Ursidae	3	4	5	8
Family Felidae	9	17	14	40
Family Hyaenidae	1	1	3	4
Family Herpestidae	1	7	14	33
Family Viverridae <sup>b</sup>	6	12	15	35
<b>Order Perissodactyla</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>17</b>
Family Equidae	1	2	1	8
Family Rhinocerotidae	2	3	4	5
<b>Order Artiodactyla</b>	<b>25</b>	<b>40</b>	<b>89</b>	<b>240</b>
Family Suidae	2	2	5	19
Family Tragulidae	1	3	3	8
Family Moschidae	1	4	1	7
Family Cervidae	6	8	19	51
Family Bovidae	15	23	50	143
<b>Order Cetacea</b>	<b>23</b>	<b>31</b>	<b>40</b>	<b>84</b>
Family Balaenidae	1	1	2	4
Family Balaenopteridae	2	5	2	7
Family Delphinidae	13	16	17	34
Family Phocoenidae	1	1	3	6
Family Physeteridae <sup>c</sup>	2	3	2	3
Family Platanistidae	1	1	1	2
Family Ziphiidae	3	4	6	21

<sup>a</sup>Including Family Miniopteridae (with one genus and three species in South Asia)

<sup>b</sup>Including Family Prionodontidae (with one genus and one species in South Asia)

<sup>c</sup>Including Family Kogiidae (with one genus and two species in South Asia)

**Table 2.2** List of mammals of South Asia with their common names**Order Proboscidea Illiger, 1811****Family Elephantidae Gray, 1821**

1. *Elephas maximus* Linnaeus, 1758 Asian Elephant

**Order Sirenia Illiger, 1811****Family Dugongidae Gray, 1821**

2. *Dugong dugon* (Müller, 1776) Dugong

**Order Scandentia Wagner, 1855****Family Tupaiidae Gray, 1825**

3. *Anathana ellioti* (Waterhouse, 1850) Madras Treeshrew
4. *Tupaia belangeri* (Wagner, 1841) Northern Treeshrew
5. *Tupaia nicobarica* (Zelebor, 1869) Nicobar Treeshrew

**Order Primates Linnaeus, 1758****Family Lorisidae Gray, 1821**

6. *Loris tardigradus* (Linnaeus, 1758) Red Slender Loris
7. *Loris lydekkerianus* Cabrera, 1908 Grey Slender Loris
8. *Nycticebus bengalensis* (Lacépède, 1800) Bengal Slow Loris

(continued)

**Table 2.2** (continued)**Family Cercopithecidae Gray, 1821**

9. *Macaca silenus* (Linnaeus, 1758) Lion-tailed Macaque
10. *Macaca sinica* (Linnaeus, 1771) Toque Macaque
11. *Macaca mulatta* (Zimmermann, 1780) Rhesus Macaque
12. *Macaca radiata* (E. Geoffroy, 1812) Bonnet Macaque
13. *Macaca fascicularis* (Raffles, 1821) Crab-eating Macaque
14. *Macaca arctoides* (I. Geoffroy, 1831) Stump-tailed Macaque
15. *Macaca assamensis* (Mc'Clelland, 1839) Assam Macaque
16. *Macaca leonina* (Blyth, 1863) Northern Pig-tailed Macaque
17. *Macaca munzala* Sinha et al., 2005 Arunachal Macaque
18. *Semnopithecus entellus* (Dufresne, 1797) Bengal Hanuman Langur
19. *Semnopithecus schistaceus* Hodgson, 1840 Central Himalayan Langur
20. *Semnopithecus hypoleucos* Blyth, 1841 Dark-legged Malabar Langur
21. *Semnopithecus dussumieri* I. Geoffroy, 1843 Western Hanuman Langur
22. *Semnopithecus anchises* (Blyth, 1844) Deccan Hanuman Langur
23. *Semnopithecus priam* Blyth, 1844 Coromandel Gray Langur
24. *Semnopithecus thersites* (Blyth, 1847) Tufted Gray Langur
25. *Semnopithecus ajax* (Pocock, 1928) Himalayan Gray Langur
26. *Semnopithecus hector* (Pocock, 1928) Lesser Hill Langur
27. *Trachypithecus vetulus* (Erxleben, 1777) Purple-faced Langur
28. *Trachypithecus johnii* (Fischer, 1829) Nilgiri Langur
29. *Trachypithecus pileatus* (Blyth, 1843) Capped Langur
30. *Trachypithecus phayrei* (Blyth, 1847) Phayre's Leaf Monkey
31. *Trachypithecus geei* (Khajuria, 1956) Gee's Golden Langur

**Family Hylobatidae Gray, 1871**

32. *Hoolock hoolock* (Harlan, 1834) Western Hoolock Gibbon
33. *Hoolock leuconedys* (Groves, 1967) Eastern Hoolock Gibbon

**Order Rodentia****Family Sciuridae Hemprich, 1820**

34. *Ratufa macroura* (Pennant, 1769) Grizzled Giant Squirrel
35. *Ratufa indica* (Erxleben, 1777) Indian Giant Squirrel
36. *Ratufa bicolor* (Sparman, 1778) Black Giant Squirrel
37. *Belomys pearsonii* (Gray, 1842) Hairy-footed Flying Squirrel
38. *Biswamoyopterus biswasi* Saha, 1981 Namdapha Flying Squirrel
39. *Eoglaucomys fimbriatus* (Gray, 1837) Small Kashmir Flying Squirrel
40. *Eupetaurus cinereus* Thomas, 1888 Woolly Flying Squirrel
41. *Hylopetes alboniger* (Hodgson, 1836) Parti-coloured Flying Squirrel
42. *Petaurista petaurista* (Pallas, 1766) Red Giant Flying Squirrel
43. *Petaurista magnificus* (Hodgson, 1836) Hodgson's Giant Flying Squirrel
44. *Petaurista philippensis* (Elliot, 1839) South Indian Giant Flying Squirrel
45. *Petaurista elegans* (Muller, 1840) Spotted Giant Flying Squirrel
46. *Petaurista nobilis* (Gray, 1842) Noble Giant Flying Squirrel
47. *Petinomys fuscocapillus* (Jerdon, 1847) Travancore Flying Squirrel
48. *Callosciurus erythraeus* (Pallas, 1799) Pallas's Squirrel
49. *Callosciurus pygerythrus* (I. Geoffroy Saint-Hilaire, 1831) Irrawaddy Squirrel
50. *Dremomys lokriah* (Hodgson, 1836) Orange-bellied Himalayan Squirrel
51. *Dremomys pernyi* (Milne-Edwards, 1867) Pernyi's Long-nosed Squirrel

(continued)

**Table 2.2** (continued)

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52. *Dremomys rufigenis* (Blanford, 1878), Red-cheeked Squirrel  
 53. *Funambulus palmarum* (Linnaeus, 1766) Three-striped Palm Squirrel  
 54. *Funambulus tristriatus* (Waterhouse, 1837) Jungle Striped Squirrel  
 55. *Funambulus sublineatus* (Waterhouse, 1838) Dusky-striped Squirrel  
 56. *Funambulus layardi* (Blyth, 1849) Layard's Striped Squirrel  
 57. *Funambulus pennantii* Wroughton, 1905 Northern Palm Squirrel  
 58. *Tamiops macclellandi* (Horsfield, 1840) Himalayan Striped Squirrel  
 59. *Spermophilopsis leptodactylus* (Lichtenstein, 1823) Long-clawed Ground Squirrel  
 60. *Marmota himalayana* (Hodgson, 1841) Himalayan Marmot  
 61. *Marmota caudata* (Geoffroy, 1844) Long-tailed Marmot  
 62. *Spermophilus fulvus* (Lichtenstein, 1823) Yellow Ground Squirrel
- Family Gliridae Muirhead, 1819**
63. *Dryomys nitedula* (Pallas, 1778) Forest Dormouse  
 64. *Dryomys niethammeri* Holden, 1996 Niethammer's Forest Dormouse
- Family Dipodidae Fischer, 1817**
65. *Allactaga elater* (Lichtenstein, 1828) Small Five-toed Jerboa  
 66. *Allactaga williamsi* Thomas, 1897 William's Jerboa  
 67. *Allactaga hotsoni* Thomas, 1920 Hotson's Five-toed Jerboa  
 68. *Salpingotulus michaelis* (Fitzgibbon, 1966) Balochistan Pygmy Jerboa  
 69. *Jaculus blanfordi* (Murray, 1884) Blanford's Jerboa  
 70. *Sicista concolor* (Büchner, 1892) Chinese Birch Mouse
- Family Platacanthomyidae Alston, 1876**
71. *Platacanthomys lasiurus* Blyth, 1859 Malabar Spiny Dormouse
- Family Spalacidae Gray, 1821**
72. *Cannomys badius* (Hodgson, 1841) Bay Bamboo Rat  
 73. *Rhizomys pruinosus* Blyth, 1851 Hoary Bamboo Rat
- Family Calomyscidae Vorontsov and Potapova, 1979**
74. *Calomyscus baluchi* Thomas, 1920 Baluchi Mouse-like Hamster  
 75. *Calomyscus hotsoni* Thomas, 1920 Hotson's Mouse-like Hamster  
 76. *Calomyscus elburzensis* Goodwin, 1938 Goodwin's Mouse-like Hamster
- Family Cricetidae Fischer, 1817**
77. *Cricetulus migratorius* (Pallas, 1773) Little Grey Hamster  
 78. *Cricetulus alticola* Thomas, 1917 Ladakh Hamster  
 79. *Alticola roylei* (Gray, 1842) Royle's Vole  
 80. *Alticola stoliczkanus* (Blanford, 1875) Stoliczka's Vole  
 81. *Alticola argentatus* (Severtzov, 1879) Silver Mountain Vole  
 82. *Alticola albicaudus* (True, 1894) White-tailed Mountain Vole  
 83. *Alticola montosa* (True, 1894) Kashmir Mountain Vole  
 84. *Blanfordimys afghanus* (Thomas, 1912) Afghan Vole  
 85. *Blanfordimys bucharensis* (Vinogradov, 1930) Bucharian Vole  
 86. *Ellobius talpinus* (Pallas, 1770) Northern Mole Vole  
 87. *Ellobius fuscocapillus* (Blyth, 1842) Afghan Mole Vole  
 88. *Eothenomys melanogaster* (Milne-Edwards, 1871) Pere David's Vole  
 89. *Hyperacrius wynnei* (Blanford, 1881) Murree Vole  
 90. *Hyperacrius fertilis* (True, 1894) Subalpine Kashmir Vole  
 91. *Microtus ilaeus* Thomas, 1912 Kazakhstan Vole  
 92. *Neodon sikimensis* (Horsfield, 1841) Sikkim Vole
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(continued)

**Table 2.2** (continued)

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93.	<i>Neodon juldaschi</i> (Severtzov, 1879) Juniper Vole
94.	<i>Phaiomys leucurus</i> Blyth, 1863 Blyth's Vole
<b>Family Muridae Illiger, 1811</b>	
95.	<i>Acomys dimidiatus</i> (Cretzschmar, 1826) Arabian Spiny Mouse
96.	<i>Gerbillus nanus</i> Blanford, 1875 Balochistan Gerbil
97.	<i>Gerbillus gleadowi</i> Murray, 1886 Little Hairy-footed Gerbil
98.	<i>Gerbillus aquilus</i> Schlitter & Stezer, 1972 Swarthy Gerbil
99.	<i>Meriones meridianus</i> (Pallas, 1773) Mid-day Jird
100.	<i>Meriones libycus</i> Lichtenstein, 1823 Libyan Jird
101.	<i>Meriones crassus</i> Sundevall, 1842 Sundevall's Jird
102.	<i>Meriones hurrianae</i> (Jerdon, 1867) Indian Desert Gerbil
103.	<i>Meriones persicus</i> (Blanford, 1875) Persian Jird
104.	<i>Meriones zarudnyi</i> Heptner, 1937 Zarudny's Jird
105.	<i>Rhombomys opimus</i> (Lichtenstein, 1823) Great Gerbil
106.	<i>Tatera indica</i> (Hardwicke, 1807) Indian Gerbil
107.	<i>Apodemus draco</i> (Barrett-Hamilton, 1900) South China Wood Mouse
108.	<i>Apodemus pallipes</i> (Barrett-Hamilton, 1900) Himalayan Field Mouse
109.	<i>Apodemus latronum</i> Thomas, 1911 Sichuan Field Mouse
110.	<i>Apodemus rusiges</i> Miller, 1913 Kashmir Field Mouse
111.	<i>Apodemus gurkha</i> Thomas, 1924 Himalayan Wood Mouse
112.	<i>Bandicota indica</i> (Bechstein, 1800) Large Bandicoot-rat
113.	<i>Bandicota bengalensis</i> (Gray & Hardwicke, 1833) Lesser Bandicoot-rat
114.	<i>Berylmys bowersi</i> (Anderson, 1879) Bower's Rat
115.	<i>Berylmys mackenziei</i> (Thomas, 1916) Mackenzie's Rat
116.	<i>Berylmys manipulus</i> (Thomas, 1916) Manipur Rat
117.	<i>Chiropodomys gliroides</i> (Blyth, 1856) Pencillate-tailed Tree-mouse
118.	<i>Cremnomys cutchicus</i> Wroughton, 1912 Cutch Rock Rat
119.	<i>Cremnomys elvira</i> (Ellerman, 1947) Large Rock Rat
120.	<i>Dacnomys millardi</i> Thomas, 1916 Millard's Rat
121.	<i>Diomys crumpi</i> Thomas, 1917 Crump's Mouse
122.	<i>Golunda ellioti</i> Gray, 1837 Indian Bush-Rat
123.	<i>Hadromys humei</i> (Thomas, 1886) Hume's Rat
124.	<i>Leopoldamys edwardsi</i> (Thomas, 1882) Edward's Rat
125.	<i>Leopoldamys sabanus</i> (Thomas, 1887) Noisy Rat
126.	<i>Madromys blanfordi</i> (Thomas, 1881) Blanford's Rat
127.	<i>Micromys minutus</i> (Pallas, 1771) Harvest Mouse
128.	<i>Millardia meltada</i> (Gray, 1837) Soft-furred Metad
129.	<i>Millardia gleadowi</i> (Murray, 1885) Sand-coloured Metad
130.	<i>Millardia kondana</i> Mishra & Dhanda, 1975 Large Metad
131.	<i>Mus musculus</i> Linnaeus, 1758 House Mouse
132.	<i>Mus platythrix</i> Bennett, 1832 Brown Spiny Mouse
133.	<i>Mus booduga</i> (Gray, 1837) Common Indian Field Mouse
134.	<i>Mus saxicola</i> Elliot, 1839 Elliot's Spiny Mouse
135.	<i>Mus cervicolor</i> Hodgson, 1845 Fawn-coloured Mouse
136.	<i>Mus terricolor</i> Blyth, 1851 Earth-coloured Mouse
137.	<i>Mus famulus</i> Bonhote, 1898 Bonhote's Mouse
138.	<i>Mus phillipsi</i> Wroughton, 1912 Wroughton's Small Spiny Mouse

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(continued)

**Table 2.2** (continued)

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139. *Mus cookii* Ryley, 1914 Ryley's Spiny Mouse  
 140. *Mus mayori* (Thomas, 1915) Mayor's Mouse  
 141. *Mus pahari* Thomas, 1916 Sikkim Mouse  
 142. *Mus fernandoni* (Phillips, 1932) Ceylon Spiny Mouse  
 143. *Nesokia indica* (Gray & Hardwicke, 1832) Short-tailed Bandicoot-rat  
 144. *Niviventer niviventer* (Hodgson, 1836) Himalayan Niviventer  
 145. *Niviventer fulvescens* (Gray, 1847) Indo-Malayan Niviventer  
 146. *Niviventer brahma* (Thomas, 1914) Brahman Niviventer  
 147. *Niviventer eha* (Wroughton, 1916) Smoke-bellied Niviventer  
 148. *Niviventer langbianis* (Robinson & Kloss, 1922) Indo-Chinese Arboreal Niviventer  
 149. *Rattus rattus* (Linnaeus, 1758) Common House Rat  
 150. *Rattus norvegicus* (Berkenhout, 1769) Norway Rat  
 151. *Rattus tanezumi* (Temminck, 1844) Oriental House Rat  
 152. *Rattus nitidus* (Hodgson, 1845) Himalayan Rat  
 153. *Rattus pyctoris* (Hodgson, 1845) Turkestan Rat  
 154. *Rattus exulans* (Peale, 1848) Polynesian Rat  
 155. *Rattus andamanensis* (Blyth, 1860) Indochinese Forest Rat  
 156. *Rattus palmarum* (Zelevor, 1869) Car Nicobar Rat  
 157. *Rattus burrus* (Miller, 1902) Miller's Nicobar Rat  
 158. *Rattus stoicus* (Miller, 1902) Andaman Rat  
 159. *Rattus satarae* Hinton, 1918 Sahyadri's Forest Rat  
 160. *Rattus montanus* Phillips, 1932 Nillu Rat  
 161. *Rattus ranjinae* Agrawal & Ghosh, 1969 Ranjini's Field Rat  
 162. *Srilankamys ohiensis* (Phillips, 1929) Ohiya Rat  
 163. *Vandeleuria oleracea* (Bennett, 1832) Indian Long-tailed Tree Mouse  
 164. *Vandeleuria nilagirica* (Jerdon, 1867) Nilgiri Vandeleuria  
 165. *Vandeleuria nolthenii* Phillips, 1929 Ceylon Highland Tree Mouse
- Family Hystricidae G. Fischer, 1817**
166. *Atherurus macrourus* (Linnaeus, 1758) Asiatic Brush-tailed Porcupine  
 167. *Hystrix brachyura* Linnaeus, 1758 Himalayan Crestless Porcupine  
 168. *Hystrix indica* Kerr, 1792 Indian Crested Porcupine
- Order Lagomorpha Brandt, 1855**
- Family Ochotonidae Thomas, 1897**
169. *Ochotona roylei* (Ogilby, 1839) Royle's Pika  
 170. *Ochotona rufescens* (Gray, 1842) Afghan Pika  
 171. *Ochotona curzoniae* (Hodgson, 1858) Black-lipped Pika  
 172. *Ochotona thibetana* (Milne-Edwards, 1871) Moupin Pika  
 173. *Ochotona ladacensis* (Günther, 1875) Ladakh Pika  
 174. *Ochotona macrotis* (Günther, 1875) Large-eared Pika  
 175. *Ochotona nubrica* Thomas, 1922 Nubra Pika  
 176. *Ochotona forresti* Thomas, 1923 Forrest's Pika  
 177. *Ochotona himalayana* Feng, 1973 Himalayan Pika
- Family Leporidae Fischer, 1817**
178. *Caprolagus hispidus* (Pearson, 1839) Hispid Hare  
 179. *Lepus tolai* Pallas, 1778 Tolai Hare  
 180. *Lepus nigricollis* Cuvier, 1823 Black-naped Hare
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(continued)

**Table 2.2** (continued)

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181. *Lepus oiostolus* Hodgson, 1840 Woolly Hare  
 182. *Lepus tibetanus* Waterhouse, 1841 Desert Hare
- Order Erinaceomorpha Gregory, 1910**  
**Family Erinaceidae Fischer, 1817**
183. *Hemiechinus auritus* (Gmelin, 1770) Long-eared Hedgehog  
 184. *Hemiechinus collaris* (Gray, 1830) Collared Hedgehog  
 185. *Paraechinus hypomelas* (Brandt, 1836) Brandt's Hedgehog  
 186. *Paraechinus micropus* (Blyth, 1846) Indian Hedgehog  
 187. *Paraechinus nudiventris* (Horsfield, 1851) Madras Hedgehog
- Order Soricomorpha Gregory, 1910**  
**Family Soricidae Fischer, 1817**
188. *Crocidura leucodon* (Hermann, 1780) Bicoloured White-toothed Shrew  
 189. *Crocidura gmelini* (Pallas, 1811) Gmelin's White-toothed Shrew  
 190. *Crocidura fuliginosa* (Blyth, 1855) Southeast Asian Shrew  
 191. *Crocidura horsfieldii* (Tomes, 1856) Horsfield's Shrew  
 192. *Crocidura attenuata* Milne-Edwards, 1872 Grey Shrew  
 193. *Crocidura andamanensis* Miller, 1902 Andaman White-toothed Shrew  
 194. *Crocidura nicobarica* Miller, 1902 Nicobar Shrew  
 195. *Crocidura pullata* Miller, 1911 Kashmir White-toothed Shrew  
 196. *Crocidura hispida* Thomas, 1913 Andaman Shrew  
 197. *Crocidura pergrisea* Miller, 1913 Pale Grey Shrew  
 198. *Crocidura rapax* G. Allen, 1923 Chinese White-toothed Shrew  
 199. *Crocidura zarudnyi* Ognev, 1928 Zarudny's Rock Shrew  
 200. *Crocidura miya* Phillips, 1929 Sri Lankan Long-tailed Shrew  
 201. *Crocidura jenkinsi* Chakraborty, 1978 Jenkin's Andaman Spiny Shrew  
 202. *Crocidura hikmiya* Meegaskumbara et al., 2007 Sinharaja Shrew  
 203. *Feroculus feroculus* (Kelaart, 1850) Kelaart's Long-clawed Shrew  
 204. *Solisorex pearsoni* Thomas, 1924 Pearson's Long-clawed Shrew  
 205. *Suncus murinus* (Linnaeus, 1766) House Shrew  
 206. *Suncus etruscus* (Savi, 1822) Savi's Pygmy Shrew  
 207. *Suncus montanus* (Kelaart, 1850) Sri Lankan Highland Shrew  
 208. *Suncus niger* (Horsfield, 1851) Indian Highland Shrew  
 209. *Suncus stoliczkanus* (Anderson, 1877) Anderson's Shrew  
 210. *Suncus dayi* (Dobson, 1888) Day's Shrew  
 211. *Suncus zeylanicus* Phillips, 1928 Ceylon Jungle Shrew  
 212. *Suncus fellowesgordoni* Phillips, 1932 Ceylon Pygmy Shrew  
 213. *Anourosorex squamipes* Milne-Edwards, 1872 Chinese Mole-Shrew  
 214. *Anourosorex assamensis* Anderson, 1875 Assam Mole-Shrew  
 215. *Anourosorex schmidi* Petter, 1963 Giant Mole-Shrew  
 216. *Chimmarogale himalayica* (Gray, 1842) Himalayan Water Shrew  
 217. *Episoriculus caudatus* (Horsfield, 1851) Hodgson's Brown-toothed Shrew  
 218. *Episoriculus macrurus* (Blanford, 1888) Arboreal Brown-toothed Shrew  
 219. *Episoriculus sacratu*s (Thomas, 1911) Sichuan Brown-toothed Shrew  
 220. *Episoriculus baileyi* (Thomas, 1914) Long-tailed Brown-toothed Shrew  
 221. *Nectogale elegans* Milne-Edwards, 1870 Web-footed Shrew  
 222. *Sorex minutus* Linnaeus, 1766 Eurasian Pygmy Shrew
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(continued)

**Table 2.2** (continued)

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223. *Sorex bedfordiae* Thomas, 1911 Lesser Striped Shrew  
 224. *Sorex planiceps* Miller, 1911 Kashmir Pygmy Shrew  
 225. *Sorex excelsus* Allen, 1923 Chinese Highland Shrew  
 226. *Soriculus nigriscens* (Gray, 1842) Sikkim Large-clawed Shrew  
**Family Talpidae Fischer, 1817**  
 227. *Euroscaptor micrura* (Hodgson, 1841) Himalayan Mole  
 228. *Parascaptor leucura* (Blyth, 1850) Indian Mole  
**Order Chiroptera Blumenbach, 1779**  
**Family Pteropodidae Gray, 1821**  
 229. *Cynopterus sphinx* (Vahl, 1797) Greater Short-nosed Fruit Bat  
 230. *Cynopterus brachyotis* (Müller, 1838) Lesser Short-nosed Fruit Bat  
 231. *Eonycteris spelaea* (Dobson, 1871) Lesser Dawn Bat  
 232. *Latidens salimalii* Thonglongya, 1972 Salim Ali's Fruit Bat  
 233. *Macroglossus sobrinus* Andersen, 1911 Greater Long-nosed Fruit Bat  
 234. *Megaerops ecaudatus* Temminck, 1837 Temminck's Fruit Bat  
 235. *Megaerops niphanae* Yenbutra & Fenten, 1983 Ratanaworabhan's Fruit Bat  
 236. *Pteropus giganteus* (Brünnich, 1782) Indian Flying Fox  
 237. *Pteropus hypomelanus* Temminck, 1853 Variable Flying Fox  
 238. *Pteropus melanotus* Blyth, 1863 Black-eared Flying Fox  
 239. *Pteropus faunulus* Miller, 1902 Nicobar Flying Fox  
 240. *Rousettus aegyptiacus* (E. Geoffroy, 1810) Egyptian Rousette  
 241. *Rousettus leschenaultii* (Desmarest, 1820) Leschenault's Rousette  
 242. *Sphaerias blanfordi* (Thomas, 1891) Blanford's Fruit Bat  
**Family Rhinolophidae Bell, 1836**  
 243. *Rhinolophus ferrumequinum* (Schreber, 1774) Greater Horseshoe Bat  
 244. *Rhinolophus hipposideros* (Bechstein, 1800) Lesser Horseshoe Bat  
 245. *Rhinolophus affinis* Horsfield, 1823 Intermediate Horseshoe Bat  
 246. *Rhinolophus pusillus* Temminck, 1834 Least Horseshoe Bat  
 247. *Rhinolophus trifolius* Temminck, 1834 Trefoil Horseshoe Bat  
 248. *Rhinolophus luctus* Temminck, 1835 Woolly Horseshoe Bat  
 249. *Rhinolophus rouxii* Temminck, 1835 Rufous Horseshoe Bat  
 250. *Rhinolophus lepidus* Blyth, 1844 Blyth's Horseshoe Bat  
 251. *Rhinolophus macrotis* Blyth, 1844 Big-eared Horseshoe Bat  
 252. *Rhinolophus mitratus* Blyth, 1844 Mitred Horseshoe Bat  
 253. *Rhinolophus subbadius* Blyth, 1844 Little Nepalese Horseshoe Bat  
 254. *Rhinolophus pearsonii* Horsfield, 1851 Pearson's Horseshoe Bat  
 255. *Rhinolophus blasii* Peters, 1866 Blasius's Horseshoe Bat  
 256. *Rhinolophus yunanensis* Dobson, 1872 Dobson's Horseshoe Bat  
 257. *Rhinolophus mehelyi* Matschie, 1902 Mehely's Horseshoe Bat  
 258. *Rhinolophus beddomei* Andersen, 1905 Beddome's Horseshoe Bat  
 259. *Rhinolophus sinicus* Andersen, 1905 Chinese Horseshoe Bat  
 260. *Rhinolophus cognatus* Andersen, 1906 Andaman Horseshoe Bat  
 261. *Rhinolophus bocharicus* Kastchenko & Akimov, 1917 Central Aisan Horseshoe Bat  
 262. *Rhinolophus shorridgei* K. Andersen, 1918 Shorridge's Horseshoe Bat  
**Family Hipposideridae Lydekker, 1891**  
 263. *Asellia tridens* (E. Geoffroy, 1813) Geoffroy's Trident Leaf-nosed Bat  
 264. *Coelops frithii* Blyth, 1848 East Asian Tail-less Leaf-nosed Bat
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(continued)

**Table 2.2** (continued)

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265. *Hipposideros speoris* (Schneider, 1800) Schneider's Leaf-nosed Bat  
 266. *Hipposideros diadema* (E. Geoffroy, 1813) Diadem Leaf-nosed Bat  
 267. *Hipposideros larvatus* (Horsfield, 1823) Intermediate Leaf-nosed Bat  
 268. *Hipposideros armiger* (Hodgson, 1835) Great Leaf-nosed Bat  
 269. *Hipposideros fulvus* Gray, 1838 Fulvus Leaf-nosed Bat  
 270. *Hipposideros galeritus* Cantor, 1846 Cantor's Leaf-nosed Bat  
 271. *Hipposideros ater* Templeton, 1848 Dusky Leaf-nosed Bat  
 272. *Hipposideros lankadiva* Kelaart, 1850 Indian Leaf-nosed Bat  
 273. *Hipposideros cineraceus* Blyth, 1853 Ashy Leaf-nosed Bat  
 274. *Hipposideros nicobarulae* Miller, 1902 Nicobar Leaf-nosed Bat  
 275. *Hipposideros pomona* Andersen, 1918 Pomona Leaf-nosed Bat  
 276. *Hipposideros durgadasi* Khajuria, 1970 Durga Das's Leaf-nosed Bat  
 277. *Hipposideros hypophyllus* Kock and Bhat, 1994 Kolar Leaf-nosed Bat  
 278. *Triaenops persicus* Dobson, 1871 Persian Trident Bat

**Family Megadermatidae H. Allen, 1864**

279. *Megaderma spasma* (Linnaeus, 1758) Lesser False Vampire Bat  
 280. *Megaderma lyra* E. Geoffroy, 1810 Greater False Vampire Bat

**Family Rhinopomatidae Bonaparte, 1838**

281. *Rhinopoma hardwickii* Gray, 1831 Lesser Mouse-tailed Bat  
 282. *Rhinopoma microphyllum* (Brünnich, 1872) Greater Mouse-tailed Bat  
 283. *Rhinopoma muscatellum* Thomas, 1903 Small Mouse-tailed Bat

**Family Emballonuridae Gervais, 1855**

284. *Saccolaimus saccolaimus* (Temminck, 1838) Pouch-bearing Tomb Bat  
 285. *Taphozous perforatus* E. Geoffroy, 1818 Egyptian Tomb Bat  
 286. *Taphozous longimanus* Hardwicke, 1825 Long-winged Tomb Bat  
 287. *Taphozous nudiventris* Cretzschmar, 1830 Naked-rumped Tomb Bat  
 288. *Taphozous melanopogon* Temminck, 1841 Black-bearded Tomb Bat  
 289. *Taphozous theobaldi* Dobson, 1872 Theobald's Tomb Bat

**Family Molossidae Gill, 1872**

290. *Chaerephon plicatus* (Buchanan, 1800) Wrinkle-lipped Free-tailed Bat  
 291. *Otomops wroughtoni* (Thomas, 1913) Wroughton's Giant Mastiff Bat  
 292. *Tadarida teniotis* (Rafinesque, 1814) European Free-tailed Bat  
 293. *Tadarida aegyptiaca* (E. Geoffroy, 1818) Egyptian Free-tailed Bat

**Family Vespertilionidae Gray, 1821**

294. *Arielulus circumdatus* (Temminck, 1840) Bronze Sprite  
 295. *Eptesicus serotinus* (Schreber, 1774) Serotine  
 296. *Eptesicus bottae* (Peters, 1869) Botta's Serotine  
 297. *Eptesicus pachyotis* (Dobson, 1871) Thick-eared Bat  
 298. *Eptesicus nasutus* (Dobson, 1877) Sindh Bat  
 299. *Eptesicus dimissus* Thomas, 1916 Surat Serotine  
 300. *Eptesicus gobiensis* Bobrinskii, 1926 Gobi Big Brown Bat  
 301. *Eptesicus tatei* Ellerman & Morrison-Scott, 1951 Sombre Bat  
 302. *Hesperoptenus tickelli* (Blyth, 1851) Tickell's Bat  
 303. *Scotoecus pallidus* (Dobson, 1876) Desert Yellow Lesser House Bat  
 304. *Scotomanes ornatus* (Blyth, 1851) Harlequin Bat  
 305. *Scotophilus kuhlii* Leach, 1821 Lesser Asiatic Yellow House Bat  
 306. *Scotophilus heathii* (Horsfield, 1831) Greater Asiatic Yellow House Bat
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(continued)

**Table 2.2** (continued)

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307.	<i>Nyctalus noctula</i> (Schreber, 1774)	Noctule
308.	<i>Nyctalus leisleri</i> (Kuhl, 1817)	Leisler's Noctule
309.	<i>Nyctalus montanus</i> (Barrett-Hamilton, 1906)	Mountain Noctule
310.	<i>Pipistrellus pipistrellus</i> (Schreber, 1774)	Common Pipistrelle
311.	<i>Pipistrellus kuhlii</i> (Kuhl, 1817)	Kuhl's Pipistrelle
312.	<i>Pipistrellus coromandra</i> (Gray, 1838)	Indian Pipistrelle
313.	<i>Pipistrellus javanicus</i> (Gray, 1838)	Javan Pipistrelle
314.	<i>Pipistrellus abramus</i> (Temminck, 1840)	Japanese Pipistrelle
315.	<i>Pipistrellus tenuis</i> (Temminck, 1840)	Least Pipistrelle
316.	<i>Pipistrellus ceylonicus</i> (Kelaart, 1852)	Kelaart's Pipistrelle
317.	<i>Pipistrellus paterculus</i> Thomas, 1915	Mount Popa Pipistrelle
318.	<i>Scotozous dormeri</i> Dobson, 1875	Dormer's Pipistrelle
319.	<i>Barbastella darjelingensis</i> (Hodgson, 1855)	Large Barbastelle
320.	<i>Otonycteris hemprichii</i> Peters, 1859	Hemprich's Desert Bat
321.	<i>Plecotus homochrous</i> Hodgson, 1847	Nepal Long-eared Bat
322.	<i>Plecotus wardi</i> Thomas, 1911	Ward's Long-eared Bat
323.	<i>Plecotus strelkovi</i> Spitzenberger, 2006	Strelkov's Long-eared Bat
324.	<i>Falsistrellus affinis</i> (Dobson, 1871)	Chocolate Pipistrelle
325.	<i>Hypsugo savii</i> (Bonaparte, 1837)	Savii's Pipistrelle
326.	<i>Hypsugo cadornae</i> (Thomas, 1916)	Cadorna's Pipistrelle
327.	<i>Ia io</i> Thomas, 1902	Great Evening Bat
328.	<i>Philetor brachypterus</i> (Temminck, 1840)	Rohu's Bat
329.	<i>Tylonycteris pachypus</i> (Temminck, 1840)	Lesser Bamboo Bat
330.	<i>Tylonycteris robustula</i> Thomas, 1915	Greater Bamboo Bat
331.	<i>Vespertilio murinus</i> Linnaeus, 1758	Particolored Bat
332.	<i>Myotis emarginatus</i> (E. Geoffroy, 1806)	Geoffroy's Myotis
333.	<i>Myotis formosus</i> (Hodgson, 1835)	Hodgson's Myotis
334.	<i>Myotis hasseltii</i> (Temminck, 1840)	Lesser Large-footed Myotis
335.	<i>Myotis horsfieldii</i> (Temminck, 1840)	Horsfield's Myotis
336.	<i>Myotis muricola</i> (Gray, 1846)	Hairy-faced Myotis
337.	<i>Myotis siligorensis</i> (Horsfield, 1855)	Himalayan Whiskered Myotis
338.	<i>Myotis blythi</i> (Tomes, 1857)	Lesser Mouse-eared Myotis
339.	<i>Myotis annectans</i> (Dobson, 1871)	Hairy-faced Myotis
340.	<i>Myotis laniger</i> (Peters, 1871)	Chinese Water Myotis
341.	<i>Myotis nipalensis</i> (Dobson, 1871)	Nepal Whiskered Myotis
342.	<i>Myotis longipes</i> (Dobson, 1873)	Kashmir Cave Myotis
343.	<i>Myotis montivagus</i> (Dobson, 1874)	Burmese Whiskered Myotis
344.	<i>Myotis sicarius</i> Thomas, 1915	Mendelli's Mouse-eared Myotis
345.	<i>Myotis bucharensis</i> Kuzyakin, 1950	Bocharic Myotis
346.	<i>Myotis csorbai</i> Topál, 1997	Csorba's Mouse-eared Myotis
347.	<i>Harpiocephalus harpia</i> (Temminck, 1840)	Lesser Hairy-winged Bat
348.	<i>Murina aurata</i> Milne-Edwards, 1872	Little Tube-nosed Bat
349.	<i>Murina cyclotis</i> Dobson, 1872	Round-eared Tube-nosed Bat
350.	<i>Murina huttoni</i> (Peters, 1872)	Hutton's Tube-nosed Bat
351.	<i>Murina leucogaster</i> Milne-Edwards, 1872	Greater Tube-nosed Bat
352.	<i>Murina tubinaris</i> (Scully, 1881)	Scully's Tube-nosed Bat
353.	<i>Harpiola grisea</i> (Peters, 1872)	Peter's Tube-nosed Bat

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**Table 2.2** (continued)

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354. *Kerivoula picta* (Pallas, 1767) Painted Woolly Bat  
 355. *Kerivoula hardwickii* (Horsfield, 1824) Hardwicke's Woolly Bat  
 356. *Kerivoula lenis* Thomas, 1916 Lenis Woolly Bat  
**Family Miniopteridae Miller, 1907**  
 357. *Miniopterus fuliginosus* (Hodgson, 1835) Eastern Long-fingered Bat  
 358. *Miniopterus pusillus* Dobson, 1876 Small Long-fingered Bat  
 359. *Miniopterus magnater* Sanborn, 1931 Western Long-fingered Bat  
**Order Pholidota Weber, 1904**  
**Family Manidae Gray, 1821**  
 360. *Manis crassicaudata* Gray, 1827 Indian Pangolin  
 361. *Manis pentadactyla* Linnaeus, 1758 Chinese Pangolin  
**Order Carnivora Bowdich, 1821**  
**Family Canidae Fischer de Waldheim, 1817**  
 362. *Canis aureus* Linnaeus, 1758 Golden Jackal  
 363. *Canis lupus* Linnaeus, 1758 Wolf  
 364. *Cuon alpinus* (Pallas, 1811) Dhole  
 365. *Vulpes vulpes* (Linnaeus, 1758) Red Fox  
 366. *Vulpes corsac* (Linnaeus, 1768) Corsac Fox  
 367. *Vulpes bengalensis* (Shaw, 1800) Bengal Fox  
 368. *Vulpes ruppellii* (Schinz, 1825) Ruppelli's Fox  
 369. *Vulpes ferrilata* Hodgson, 1842 Tibetan Fox  
 370. *Vulpes cana* Blandford, 1877 Blandford's Fox  
**Family Mustelidae Fischer de Waldheim, 1817**  
 371. *Aonyx cinerea* (Illiger, 1815) Oriental Small-clawed Otter  
 372. *Lutra lutra* (Linnaeus, 1758) European Otter  
 373. *Lutrogale perspicillata* (I. Geoffroy Saint-Hilaire, 1826) Smooth-coated Otter  
 374. *Martes foina* (Erxleben, 1777) Beech Marten  
 375. *Martes flavigula* (Boddaert, 1785) Yellow-throated Marten  
 376. *Martes gwatkinskii* Horsfield, 1851 Nilgiri Marten  
 377. *Arctonyx collaris* F. Cuvier, 1825 Hog-Badger  
 378. *Meles meles* (Linnaeus, 1758) European Badger  
 379. *Mellivora capensis* (Schreber, 1776) Honey Badger  
 380. *Melogale moschata* (Gray, 1831) Chinese Ferret-Badger  
 381. *Melogale personata* I. Geoffroy Saint-Hilaire, 1831 Burmese Ferret-Badger  
 382. *Mustela erminea* Linnaeus, 1758 Ermine  
 383. *Mustela nivalis* Linnaeus, 1758 Least Weasel  
 384. *Mustela sibirica* Pallas, 1773 Siberian Weasel  
 385. *Mustela altaica* Pallas, 1811 Mountain Weasel  
 386. *Mustela kathiah* Hodgson, 1835 Yellow-bellied Weasel  
 387. *Mustela strigidorsa* Gray, 1853 Back-striped Weasel  
 388. *Vormela peregusna* (Guldenstaedt, 1770), Marbled Polecat  
**Family Ailuridae Gray, 1843**  
 389. *Ailurus fulgens* F. G. Cuvier, 1825 Red Panda  
**Family Ursidae Fischer de Waldheim, 1817**  
 390. *Helarctos malayanus* (Raffles, 1822) Sun Bear  
 391. *Melursus ursinus* (Shaw, 1791) Sloth Bear
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(continued)

**Table 2.2** (continued)

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392. *Ursus arctos* Linnaeus, 1758 Brown Bear  
 393. *Ursus thibetanus* (G. Cuvier, 1823) Asian Black Bear  
**Family Felidae Fischer de Waldheim, 1817**  
 394. *Acinonyx jubatus* (Griffith, 1821) Cheetah  
 395. *Caracal caracal* (Schreber, 1776) Caracal  
 396. *Felis chaus* Schreber, 1777 Jungle Cat  
 397. *Felis sylvestris* Schreber, 1777 Wild Cat  
 398. *Felis margarita* Loche, 1858 Sand Cat  
 399. *Lynx lynx* (Linnaeus, 1758) European Lynx  
 400. *Otocolobus manul* (Pallas, 1776) Pallas's Cat  
 401. *Pardofelis temminckii* (Vigors and Horsfield, 1827) Asiatic Golden Cat  
 402. *Pardofelis marmorata* (Martin, 1837) Marbled Cat  
 403. *Prionailurus bengalensis* (Kerr, 1792) Leopard Cat  
 404. *Prionailurus rubiginosus* (I. Geoffroy, 1831) Rusty-Spotted Cat  
 405. *Prionailurus viverrinus* (Bennett, 1833) Fishing Cat  
 406. *Neofelis nebulosa* (Griffith, 1821) Clouded Leopard  
 407. *Panthera leo* (Linnaeus, 1758) Lion  
 408. *Panthera pardus* (Linnaeus, 1758) Leopard  
 409. *Panthera tigris* (Linnaeus, 1758) Tiger  
 410. *Panthera uncia* (Schreber, 1775) Snow Leopard  
**Family Prionodontidae Pocock, 1933**  
 411. *Prionodon pardicolor* Hodgson, 1842 Spotted Linsang  
**Family Hyaenidae Gray, 1821**  
 412. *Hyaena hyaena* (Linnaeus, 1758) Striped Hyaena  
**Family Herpestidae Bonaparte, 1845**  
 413. *Herpestes edwardsii* (E. Geoffroy Saint-Hilaire, 1818) Indian Grey Mongoose  
 414. *Herpestes vitticollis* Bennett, 1835 Striped-necked Mongoose  
 415. *Herpestes auropunctatus* (Hodgson, 1836) Small Indian Mongoose  
 416. *Herpestes urva* (Hodgson, 1836) Crab-eating Mongoose  
 417. *Herpestes smithii* Gray, 1837 Ruddy Mongoose  
 418. *Herpestes fuscus* Waterhouse, 1838 Indian Brown Mongoose  
 419. *Herpestes palustris* Ghose, 1965 Bengal Marsh Mongoose  
**Family Viverridae Gray, 1821**  
 420. *Arctictis binturong* (Raffles, 1821) Binturong  
 421. *Arctogalidia trivirgata* (Gray, 1832) Small-toothed Palm Civet  
 422. *Paguma larvata* (Hamilton-Smith, 1827) Masked Palm Civet  
 423. *Paradoxurus hermaphroditus* (Pallas, 1777) Common Palm Civet  
 424. *Paradoxurus aureus* F. Cuvier, 1822 Golden Dry-zone Palm Civet  
 425. *Paradoxurus montanus* Kelaart, 1852 Sri Lankan Brown Palm Civet  
 426. *Paradoxurus jerdoni* Blandford, 1885 Jerdon's Palm Civet  
 427. *Paradoxurus stenocephalus* Groves et al., 2009 Golden Wet-zone Palm Civet  
 428. *Viverra zibetha* Linnaeus, 1758 Large Indian Civet  
 429. *Viverra civettina* Blyth, 1862 Malabar Large Spotted Civet  
 430. *Viverricula indica* (E. Geoffroy Saint-Hilaire, 1803) Small Indian Civet  
**Order Perissodactyla Owen, 1848**  
**Family Equidae Gray, 1821**  
 431. *Equus hemionus* Pallas, 1775 Asian Wild Ass  
 432. *Equus kiang* Moorcroft, 1841 Tibetan Wild Ass
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(continued)

**Table 2.2** (continued)**Family Rhinocerotidae Gray, 1821**

433. *Dicerorhinus sumatrensis* (Fischer, 1814) Sumatran Rhinoceros  
 434. *Rhinoceros unicornis* Linnaeus, 1758 Great One-horned Rhinoceros  
 435. *Rhinoceros sondaicus* Desmarest, 1822 Lesser One-horned Rhinoceros

**Order Artiodactyla Owen, 1848****Family Suidae Gray, 1821**

436. *Porcula salvania* Hodgson, 1847 Pygmy Hog  
 437. *Sus scrofa* Linnaeus, 1758 Wild Boar

**Family Tragulidae Milne-Edwards, 1864**

438. *Moschiola meminna* (Erxleben, 1777) White Spotted Chevrotain  
 439. *Moschiola indica* (Gray, 1843) Indian Spotted Chevrotain  
 440. *Moschiola kathygre* Groves & Meijaard, 2005 Yellow-striped Chevrotain

**Family Moschidae Gray, 1821**

441. *Moschus chrysogaster* Hodgson, 1839 Alpine Muskdeer  
 442. *Moschus leucogaster* Hodgson, 1839 White-bellied Muskdeer  
 443. *Moschus fuscus* Li, 1981 Dwarf Muskdeer  
 444. *Moschus cupreus* Grubb, 1982 Kashmir Muskdeer

**Family Cervidae Goldfuss, 1820**

445. *Axis axis* (Erxleben, 1777) Spotted Deer  
 446. *Hyelaphus porcinus* (Zimmermann, 1780) Hog-Deer  
 447. *Cervus elaphus* Linnaeus, 1758 Red Deer  
 448. *Muntiacus vaginalis* (Boddaert, 1785) Northern Red Muntjak  
 449. *Muntiacus putaoensis* Amato, Egan & Rabinowitz, 1999 Leaf Muntjak  
 450. *Rucervus duvaucelii* (Cuvier, 1823) Swamp Deer  
 451. *Rucervus eldi* (McClelland, 1842) Brow-antlered Deer  
 452. *Rusa unicolor* (Kerr, 1792) Sambar

**Family Bovidae Gray, 1821**

453. *Antilope cervicapra* (Linnaeus, 1758) Blackbuck  
 454. *Gazella subgutturosa* (Guldenstaedt, 1780) Goitered Gazelle  
 455. *Gazella bennettii* (Sykes, 1831) Indian Gazelle  
 456. *Procapra picticaudata* Hodgson, 1846 Tibetan Gazelle  
 457. *Bos gaurus* H. Smith, 1827 Indian Bison  
 458. *Bos mutus* (Przewalski, 1883) Wild Yak  
 459. *Boselaphus tragocamelus* (Pallas, 1766) Nilgai  
 460. *Bubalus arnee* (Kerr, 1792) Wild Buffalo  
 461. *Tetracerus quadricornis* (de Blainville, 1816) Four-horned Antelope  
 462. *Budorcas taxicolor* Hodgson, 1850 Takin  
 463. *Capra sibirica* (Pallas, 1776) Siberian Ibex  
 464. *Capra aegagrus* Erxleben, 1777 Wild Goat  
 465. *Capra falconeri* (Wagner, 1839) Markhor  
 466. *Capricornis thar* (Hodgson, 1831) Himalayan Serow  
 467. *Hemitragus jemlahicus* (H. Smith, 1826) Himalayan Tahr  
 468. *Nemorhaedus goral* (Hardwicke, 1825) Himalayan Goral  
 469. *Nemorhaedus griseus* Milne-Edwards, 1872 Chinese Goral  
 470. *Nemorhaedus bailey* Pocock, 1914 Red Goral  
 471. *Nilgiritragus hylocrius* (Ogilby, 1838) Nilgiri Tahr  
 472. *Ovis ammon* (Linnaeus, 1758) Argali

(continued)

**Table 2.2** (continued)

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473. *Ovis orientalis* Gmelin, 1774 Urial  
 474. *Pantholops hodgsoni* (Abel, 1826) Tibetan Antelope  
 475. *Pseudois nayaur* (Hodgson, 1833) Blue Sheep

**Order Cetacea Brisson, 1762**

**Family Balaenidae Gray, 1821**

476. *Eubalaena australis* (Desmoulins, 1822) Southern Right Whale

**Family Balaenopteridae Gray, 1864**

477. *Balaenoptera musculus* (Linnaeus, 1758) Blue Whale  
 478. *Balaenoptera physalus* (Linnaeus, 1758) Fin Whale  
 479. *Balaenoptera acutorostrata* Lacepede, 1804 Common Minke Whale  
 480. *Balaenoptera edeni* Anderson, 1879 Bryde's Whale  
 481. *Megaptera novaeangliae* (Borowski, 1781) Humpback Whale

**Family Delphinidae Gray, 1821**

482. *Delphinus capensis* Gray, 1828 Long-beaked Common Dolphin  
 483. *Feresa attenuata* Gray, 1875 Pygmy Killer Whale  
 484. *Globicephala macrorhynchus* Gray, 1846 Short-finned Pilot Whale  
 485. *Grampus griseus* (G. Cuvier, 1812) Risso's Dolphin  
 486. *Lagenodelphis hosei* Fraser, 1956 Fraser's Dolphin  
 487. *Orcaella brevirostris* (Owen, 1866) Irrawaddy Dolphin  
 488. *Orcinus orca* (Linnaeus, 1758) Killer Whale  
 489. *Peponocephala electra* (Gray, 1846) Melon-headed Dolphin  
 490. *Pseudorca crassidens* (Owen, 1846) False Killer Whale  
 491. *Sousa chinensis* (Osbeck, 1765) Indopacific Humpback Dolphin  
 492. *Stenella longirostris* (Gray, 1828) Spinner Dolphin  
 493. *Stenella coeruleoalba* (Mayen, 1833) Striped Dolphin  
 494. *Stenella attenuata* (Gray, 1846) Pantropical Spotted Dolphin  
 495. *Steno bredanensis* (Lesson, 1828) Rough-toothed Dolphin  
 496. *Tursiops truncatus* (Montagu, 1821) Bottle-nosed Dolphin  
 497. *Tursiops aduncus* (Ehrenberg, 1833) Indopacific Bottle-nosed Dolphin

**Family Phocoenidae Gray, 1825**

498. *Neophocaena phocaenoides* (G. Cuvier, 1829) Finless Porpoise

**Family Physeteridae Gray, 1821**

499. *Physeter catodon* Linnaeus, 1758 Sperm Whale

**Family Kogiidae Miller, 1923**

500. *Kogia breviceps* (Blainville, 1838) Pygmy Sperm Whale  
 501. *Kogia sima* (Owen, 1866) Dwarf Sperm Whale

**Family Platanistidae Gray, 1846**

502. *Platanista gangetica* (Roxburgh, 1801) Gangetic Dolphin

**Family Ziphiidae Gray, 1865**

503. *Indopacetus pacificus* (Longman, 1926) Tropical Bottlenose Whale  
 504. *Mesoplodon densirostris* (Blainville, 1817) Blainville's Beaked Whale  
 505. *Mesoplodon ginkgodens* Nishiwaki and Kamiya, 1958 Ginkgo-toothed Beaked Whale  
 506. *Ziphius cavirostris* G. Cuvier, 1823 Goosebeak Whale

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Table 2.3 Distribution of mammals in South Asia indicating presence in countries within

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
<b>Order Proboscidea Illiger, 1811</b>											
<b>Family Elephantidae Gray, 1821</b>											
1.	<i>Elephas maximus</i> Linnaeus, 1758	-	+	+	+	-	+	-	+	-	+
<b>Order Sirenia Illiger, 1811</b>											
<b>Family Dugongidae Gray, 1821</b>											
2.	<i>Dugong dugon</i> (Müller, 1776)	-	-	-	+	+	-	+	-	+	+
<b>Order Scandentia Wagner, 1855</b>											
<b>Family Tupaiidae Gray, 1825</b>											
3.	<i>Anathana ellioti</i> (Waterhouse, 1850)	-	-	-	+	-	-	-	-	-	-
4.	<i>Tupaia belangeri</i> (Wagner, 1841)	-	+	+	+	-	+	-	+	-	-
5.	<i>Tupaia nicobarica</i> (Zelebor, 1869)	-	-	-	+	-	-	-	-	-	-
<b>Order Primates Linnaeus, 1758</b>											
<b>Family Lorisiidae Gray, 1821</b>											
6.	<i>Loris tardigradus</i> (Linnaeus, 1758)	-	-	-	-	-	-	-	-	-	+
7.	<i>Loris lydekkerianus</i> Cabrera, 1908	-	-	-	+	-	-	-	-	-	+
8.	<i>Nycticebus bengalensis</i> (Lacépède, 1800)	-	+	+	+	-	-	-	-	-	-
<b>Family Cercopithecoidea Gray, 1821</b>											
<b>Subfamily Cercopithecoinae Gray, 1821</b>											
9.	<i>Macaca silenus</i> (Linnaeus, 1758)	-	-	-	+	-	-	-	-	-	-
10.	<i>Macaca sinica</i> (Linnaeus, 1771)	-	-	-	-	-	-	-	-	-	+
11.	<i>Macaca mulatta</i> (Zimmermann, 1780)	+	+	+	+	-	+	-	+	+	-
12.	<i>Macaca radiata</i> (E. Geoffroy, 1812)	-	-	-	+	-	-	-	-	-	-
13.	<i>Macaca fascicularis</i> (Raffles, 1821)	-	+	-	+	-	-	-	-	-	-
14.	<i>Macaca arctoides</i> (I. Geoffroy, 1831)	-	EX	-	+	-	-	-	-	-	-
15.	<i>Macaca assamensis</i> (McClelland, 1839)	-	+	+	+	-	+	-	+	-	-

(continued)

Table 2.3 (continued)

S.No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
16.	<i>Macaca leonina</i> (Blyth, 1863)	-	+	-	+	-	-	-	-	-	-
17.	<i>Macaca muezala</i> Sinha, Datta, Madusudhan and Mishra, 2005	-	-	?	+	-	-	-	-	-	-
<b>Subfamily Colobinae Jerdon, 1867</b>											
18.	<i>Sennopithecus entellus</i> (Dufresne, 1797)	-	+	-	+	-	-	-	-	-	-
19.	<i>Sennopithecus schistaceus</i> Hodgson, 1840	-	-	+	+	-	-	-	+	-	-
20.	<i>Sennopithecus hypoleucus</i> Blyth, 1841	-	-	-	+	-	-	-	-	-	-
21.	<i>Sennopithecus dussumieri</i> I. Geoffroy, 1843	-	-	-	+	-	-	-	-	-	-
22.	<i>Sennopithecus anchises</i> (Blyth, 1844)	-	-	-	+	-	-	-	-	-	-
23.	<i>Sennopithecus priam</i> Blyth, 1844	-	-	-	+	-	-	-	-	-	-
24.	<i>Sennopithecus thersites</i> (Blyth, 1847)	-	-	-	+	-	-	-	-	-	+
25.	<i>Sennopithecus ajax</i> (Pocock, 1928)	-	-	-	+	-	-	-	-	?	-
26.	<i>Sennopithecus hector</i> (Pocock, 1928)	-	-	-	+	-	-	-	-	+	-
27.	<i>Trachypithecus vetulus</i> (Erxleben, 1777)	-	-	-	-	-	-	-	-	-	+
28.	<i>Trachypithecus johnii</i> (Fischer, 1829)	-	-	-	-	-	-	-	-	-	-
29.	<i>Trachypithecus pileatus</i> (Blyth, 1843)	-	-	+	+	-	-	-	-	-	-
30.	<i>Trachypithecus phayrei</i> (Blyth, 1847)	-	+	-	+	-	-	-	-	-	-
31.	<i>Trachypithecus geei</i> (Khajuria, 1956)	-	-	+	+	-	-	-	-	-	-
<b>Family Hylobatidae Gray, 1871</b>											
32.	<i>Hoolock hoolock</i> (Harlan, 1834)	-	+	-	+	-	-	-	-	-	-
33.	<i>Hoolock leuconedys</i> Groves, 1967	-	-	-	+	-	-	-	-	-	-
<b>Order Rodentia</b>											
<b>Suborder Sciuromorpha Brandt, 1855</b>											
<b>Family Sciuridae Hemprich, 1820</b>											
<b>Subfamily Rattufinae Moore, 1959</b>											
34.	<i>Rattufa macroura</i> (Pennant, 1769)	-	-	-	+	-	-	-	-	-	+







Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
98.	<i>Gerbillus aquilus</i> Schlitter & Stezer, 1972	+	-	-	-	-	-	-	-	+	-
99.	<i>Meriones meridianus</i> (Pallas, 1773)	+	-	-	-	-	-	-	-	-	-
100.	<i>Meriones libycus</i> Lichtenstein, 1823	+	-	-	-	-	-	-	-	+	-
101.	<i>Meriones crassus</i> Sundevall, 1842	+	-	-	-	-	-	-	-	+	-
102.	<i>Meriones hurrianae</i> (Jerdon, 1867)	?	-	-	+	-	-	-	-	+	-
103.	<i>Meriones persicus</i> (Blanford, 1875)	+	-	-	-	-	-	-	-	+	-
104.	<i>Meriones zarudnyi</i> Heptner, 1937	+	-	-	-	-	-	-	-	-	-
105.	<i>Rhombomys opimus</i> (Lichtenstein, 1823)	+	-	-	-	-	-	-	-	+	-
106.	<i>Tatera indica</i> (Hardwicke, 1807)	+	+	-	+	-	-	-	+	+	+
<b>Subfamily Murinae Illiger, 1811</b>											
107.	<i>Apodemus draco</i> (Barrett-Hamilton, 1900)	-	-	-	+	-	-	-	-	-	-
108.	<i>Apodemus pallipes</i> (Barrett-Hamilton, 1900)	+	-	-	+	-	-	-	+	+	-
109.	<i>Apodemus latronum</i> Thomas, 1911	-	-	-	+	-	-	-	-	-	-
110.	<i>Apodemus rusiges</i> Miller, 1913	-	-	-	+	-	-	-	-	-	-
111.	<i>Apodemus gurkha</i> Thomas, 1924	-	-	-	-	-	-	-	+	-	-
112.	<i>Bandicota indica</i> (Bechstein, 1800)	-	-	+	+	-	-	-	+	-	+
113.	<i>Bandicota bengalensis</i> (Gray & Hardwicke, 1833)	-	+	+	+	-	-	-	+	+	+
114.	<i>Berylmys bowersi</i> (Anderson, 1879)	-	-	-	+	-	-	-	-	-	-
115.	<i>Berylmys mackenziei</i> (Thomas, 1916)	-	-	-	+	-	-	-	-	-	-
116.	<i>Berylmys manipulus</i> (Thomas, 1916)	-	-	-	+	-	-	-	-	-	-
117.	<i>Chitropodomys gliroides</i> (Blyth, 1856)	-	-	-	+	-	-	-	-	-	-
118.	<i>Cremnomys cutchicus</i> Wroughton, 1912	-	-	-	+	-	-	-	-	-	-
119.	<i>Cremnomys eivira</i> (Ellerman, 1947)	-	-	-	+	-	-	-	-	-	-
120.	<i>Dacnomys millardi</i> Thomas, 1916	-	-	?	+	-	-	-	+	-	-
121.	<i>Diomys crumpi</i> Thomas, 1917	-	-	-	+	-	-	-	+	-	-
122.	<i>Golunda ellioti</i> Gray, 1837	-	-	+	+	-	-	-	+	+	+



Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
152.	<i>Rattus nitidus</i> (Hodgson, 1845)	-	?	+	+	-	+	-	-	-	
153.	<i>Rattus pycnoris</i> (Hodgson, 1845)	+	+	+	+	-	+	-	-	-	
154.	<i>Rattus exulans</i> (Peale, 1848)	-	+	-	-	-	-	-	-	-	
155.	<i>Rattus andamanensis</i> (Blyth, 1860)	-	?	+	+	-	+	-	-	-	
156.	<i>Rattus palmarum</i> (Zelevor, 1869)	-	-	-	+	-	+	-	-	-	
157.	<i>Rattus burrus</i> (Miller, 1902)	-	-	-	+	-	+	-	-	-	
158.	<i>Rattus stoicus</i> (Miller, 1902)	-	-	-	+	-	+	-	-	-	
159.	<i>Rattus satarae</i> Hinton, 1918	-	-	-	+	-	+	-	-	-	
160.	<i>Rattus montanus</i> Phillips, 1932	-	-	-	-	-	-	-	-	-	
161.	<i>Rattus ranjiniatae</i> Agrawal & Ghosh, 1969	-	-	-	+	-	+	-	-	-	
162.	<i>Srilankamys ohienensis</i> (Phillips, 1929)	-	-	-	-	-	-	-	-	-	
163.	<i>Vandeleuria oleracea</i> (Bennett, 1832)	-	+	+	+	-	+	-	-	-	
164.	<i>Vandeleuria nilagirica</i> (Jerdon, 1867)	-	-	-	+	-	+	-	-	-	
165.	<i>Vandeleuria nolthenii</i> Phillips, 1929	-	-	-	-	-	-	-	-	-	
<b>Infraorder Hystricognathi Brandt, 1855</b>											
<b>Family Hystricidae G. Fischer, 1817</b>											
166.	<i>Atherurus macrourus</i> (Linnaeus, 1758)	-	?	-	+	-	+	-	-	-	
167.	<i>Hystrix brachyura</i> Linnaeus, 1758	-	+	-	+	-	+	-	-	-	
168.	<i>Hystrix indica</i> Kerr, 1792	+	-	-	+	-	+	-	+	+	
<b>Order Lagomorpha Brandt, 1855</b>											
<b>Family Ochotonidae Thomas, 1897</b>											
169.	<i>Ochotona roylei</i> (Ogilby, 1839)	-	-	?	+	-	+	-	+	-	
170.	<i>Ochotona rufescens</i> (Gray, 1842)	+	-	-	-	-	-	-	-	-	
171.	<i>Ochotona curzoniae</i> (Hodgson, 1858)	-	-	?	+	-	+	-	+	-	
172.	<i>Ochotona thibetana</i> (Milne-Edwards, 1871)	-	-	+	+	-	+	-	+	-	
173.	<i>Ochotona ladacensis</i> (Günther, 1875)	-	-	-	+	-	+	-	+	-	
174.	<i>Ochotona macrotis</i> (Günther, 1875)	+	-	+	+	-	+	-	+	-	



Table 2.3 (continued)

S. No.	Taxon	Species present in											
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka				
197.	<i>Crocidura pergrisea</i> Miller, 1913	-	-	-	+	-	-	-	-	-	-	-	-
198.	<i>Crocidura rapax</i> G. Allen, 1923	-	-	-	+	-	-	-	-	-	-	-	-
199.	<i>Crocidura zarudnyi</i> Ognev, 1928	+	-	-	-	-	-	-	-	-	-	+	-
200.	<i>Crocidura miya</i> Phillips, 1929	-	-	-	-	-	-	-	-	-	-	-	+
201.	<i>Crocidura jenkinsi</i> Chakraborty, 1978	-	-	-	+	-	-	-	-	-	-	-	-
202.	<i>Crocidura hikiniya</i> Meegaskumbara et al., 2007	-	-	-	-	-	-	-	-	-	-	-	+
203.	<i>Feroculus feroculus</i> (Kelaart, 1850)	-	-	-	+	-	-	-	-	-	-	-	+
204.	<i>Solisorex pearsoni</i> Thomas, 1924	-	-	-	-	-	-	-	-	-	-	-	+
205.	<i>Suncus murinus</i> (Linnaeus, 1766)	+	+	+	+	-	+	+	+	+	+	+	+
206.	<i>Suncus etruscus</i> (Savi, 1822)	-	-	+	+	-	+	+	+	+	+	+	+
207.	<i>Suncus montanus</i> (Kelaart, 1850)	-	-	-	-	-	-	-	-	-	-	-	+
208.	<i>Suncus niger</i> (Horsfield, 1851)	-	-	-	+	-	-	-	-	-	-	-	-
209.	<i>Suncus stoliczkanus</i> (Anderson, 1877)	-	-	-	+	-	-	-	-	-	-	-	-
210.	<i>Suncus dayi</i> (Dobson, 1888)	-	-	-	+	-	-	-	-	-	-	-	-
211.	<i>Suncus zeylanicus</i> Phillips, 1928	-	-	-	-	-	-	-	-	-	-	-	+
212.	<i>Suncus fellowesgordoni</i> Phillips, 1932	-	-	-	-	-	-	-	-	-	-	-	+
<b>Subfamily Soricinae Fischer, 1817</b>													
213.	<i>Anourosorex squamipes</i> Milne-Edwards, 1872	-	-	-	+	-	-	-	-	-	-	-	-
214.	<i>Anourosorex assamensis</i> Anderson, 1875	-	-	-	+	-	-	-	-	-	-	-	-
215.	<i>Anourosorex schmidti</i> Petter, 1963	-	-	+	+	-	-	-	-	-	-	-	-
216.	<i>Chimmarogale himalayica</i> (Gray, 1842)	-	-	+	+	-	-	-	-	+	+	-	-
217.	<i>Episoriculus caudatus</i> (Horsfield, 1851)	-	-	-	+	-	-	-	-	+	+	-	-
218.	<i>Episoriculus macrurus</i> (Blanford, 1888)	-	-	-	+	-	-	-	-	+	+	-	-
219.	<i>Episoriculus sacratius</i> (Thomas, 1911)	-	-	-	+	-	-	-	-	+	+	-	-
220.	<i>Episoriculus baileyi</i> (Thomas, 1914)	-	-	-	+	-	-	-	-	+	+	-	-
221.	<i>Nectogale elegans</i> Milne-Edwards, 1870	-	-	+	+	-	-	-	-	+	+	-	-



Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
245.	<i>Rhinolophus affinis</i> Horsfield, 1823	-	+	+	+	-	+	+	+	+	?
246.	<i>Rhinolophus pusillus</i> Temminck, 1834	-	-	-	+	-	+	+	-	-	-
247.	<i>Rhinolophus trifoliatius</i> Temminck, 1834	-	-	?	+	-	-	-	-	-	-
248.	<i>Rhinolophus tuctus</i> Temminck, 1835	-	+	?	+	-	+	+	+	-	-
249.	<i>Rhinolophus rouxii</i> Temminck, 1835	-	-	?	+	-	+	+	-	-	+
250.	<i>Rhinolophus leptidus</i> Blyth, 1844	+	+	?	+	-	+	+	+	+	-
251.	<i>Rhinolophus macrotis</i> Blyth, 1844	-	+	?	+	-	+	+	+	+	-
252.	<i>Rhinolophus mitratus</i> Blyth, 1844	-	-	-	+	-	-	-	-	-	-
253.	<i>Rhinolophus subbadius</i> Blyth, 1844	-	+	?	+	-	+	+	+	-	-
254.	<i>Rhinolophus pearsonii</i> Horsfield, 1851	-	+	+	+	-	+	+	+	-	-
255.	<i>Rhinolophus blasii</i> Peters, 1866	+	-	-	-	-	-	-	-	+	-
256.	<i>Rhinolophus yunnanensis</i> Dobson, 1872	-	-	?	+	-	+	+	-	-	-
257.	<i>Rhinolophus mehelyi</i> Matschie, 1902	+	-	-	-	-	-	-	-	-	-
258.	<i>Rhinolophus beddomei</i> Andersen, 1905	-	-	-	+	-	+	+	-	-	+
259.	<i>Rhinolophus sinicus</i> Andersen, 1905	-	-	-	+	-	+	+	+	-	-
260.	<i>Rhinolophus cognatus</i> Andersen, 1906	-	-	-	+	-	+	+	-	-	-
261.	<i>Rhinolophus bocharicus</i> Kastschenko & Akimov, 1917	+	-	-	-	-	-	-	-	?	-
262.	<i>Rhinolophus shortridgei</i> K. Andersen, 1918	-	-	-	+	-	+	+	-	-	-
<b>Family Hipposideridae Lydekker, 1891</b>											
263.	<i>Asellia tridens</i> (E. Geoffroy, 1813)	+	-	-	-	-	-	-	-	+	-
264.	<i>Coelops frithii</i> Blyth, 1848	-	+	-	+	-	+	+	-	-	-
265.	<i>Hipposideros speoris</i> (Schneider, 1800)	-	-	-	+	-	+	+	-	-	+
266.	<i>Hipposideros diadema</i> (E. Geoffroy, 1813)	-	-	-	+	-	+	+	-	-	-
267.	<i>Hipposideros larvatus</i> (Horsfield, 1823)	-	+	?	+	-	+	+	-	-	-
268.	<i>Hipposideros armiger</i> (Hodgson, 1835)	-	-	?	+	-	+	+	+	-	-
269.	<i>Hipposideros fulvus</i> Gray, 1838	+	-	-	+	-	+	+	+	+	+

270.	<i>Hipposideros galeritus</i> Cantor, 1846	-	+	-	+	-	-	+	-	+	-	+
271.	<i>Hipposideros ater</i> Templeton, 1848	-	-	-	+	-	-	+	-	-	-	+
272.	<i>Hipposideros lankadiva</i> Kelaart, 1850	-	+	-	+	-	-	+	-	-	-	+
273.	<i>Hipposideros cineraceus</i> Blyth, 1853	-	-	-	-	?	-	+	+	-	-	-
274.	<i>Hipposideros nicobarulae</i> Miller, 1902	-	-	-	-	-	-	+	-	-	-	-
275.	<i>Hipposideros pomona</i> Andersen, 1918	-	+	-	+	?	-	+	-	-	-	-
276.	<i>Hipposideros durgadasi</i> Khajuria, 1970	-	-	-	-	-	-	+	-	-	-	-
277.	<i>Hipposideros hypophyllus</i> Kock and Bhat, 1994	-	-	-	-	-	-	+	-	-	-	-
278.	<i>Triaenops persicus</i> Dobson, 1871	-	-	-	-	-	-	-	-	-	+	-
<b>Family Megadermatidae H. Allen, 1864</b>												
279.	<i>Megaderma spasma</i> (Linnaeus, 1758)	-	+	-	-	-	-	+	-	-	-	+
280.	<i>Megaderma lyra</i> E. Geoffroy, 1810	+	+	-	-	?	-	+	+	-	+	+
<b>Family Rhinopomatidae Bonaparte, 1838</b>												
281.	<i>Rhinopoma hardwickii</i> Gray, 1831	+	+	-	-	-	-	+	-	-	+	-
282.	<i>Rhinopoma microphyllum</i> (Brünnich, 1872)	+	+	-	-	-	-	+	-	-	+	-
283.	<i>Rhinopoma muscatellum</i> Thomas, 1903	+	-	-	-	-	-	-	-	-	+	-
<b>Family Emballonuridae Gervais, 1855</b>												
284.	<i>Saccolaimus saccolaimus</i> (Temminck, 1838)	-	+	-	-	-	-	+	-	-	-	+
285.	<i>Taphozous perforatus</i> E. Geoffroy, 1818	-	-	-	-	-	-	+	-	-	+	-
286.	<i>Taphozous longimanus</i> Hardwicke, 1825	-	+	-	-	-	-	+	-	+	-	+
287.	<i>Taphozous nudiventris</i> Cretzschmar, 1830	+	+	-	-	?	-	+	-	?	+	-
288.	<i>Taphozous melanopogon</i> Temminck, 1841	-	+	-	-	-	-	+	-	-	-	+
289.	<i>Taphozous theobaldi</i> Dobson, 1872	-	-	-	-	-	-	+	-	-	-	-
<b>Family Molossidae Gill, 1872</b>												
290.	<i>Chaerephon plicatus</i> (Buchanan, 1800)	+	-	-	-	-	-	+	-	-	-	+
291.	<i>Otomops wrightoni</i> (Thomas, 1913)	-	-	-	-	-	-	+	-	-	-	-
292.	<i>Tadarida teniotis</i> (Rafinesque, 1814)	+	?	-	-	?	-	+	-	-	-	-
293.	<i>Tadarida aegyptiaca</i> (E. Geoffroy, 1818)	+	+	-	-	-	-	+	-	-	+	+

(continued)

Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
<b>Family Vespertilionidae Gray, 1821</b>											
<b>Subfamily Vespertilioninae Miller, 1897</b>											
<b>Tribe Eptesicini Volleth and Heller, 1994</b>											
294.	<i>Arielulus circumdatus</i> (Temminck, 1840)	-	-	-	+	-	-	-	+	-	-
295.	<i>Eptesicus serotinus</i> (Schreber, 1774)	+	-	?	+	-	-	-	+	+	-
296.	<i>Eptesicus bottae</i> (Peters, 1869)	+	-	-	+	-	-	-	-	-	-
297.	<i>Eptesicus pachyotis</i> (Dobson, 1871)	-	+	-	+	-	-	-	-	-	-
298.	<i>Eptesicus nasutus</i> (Dobson, 1877)	+	-	-	-	-	-	-	-	+	-
299.	<i>Eptesicus dimissus</i> Thomas, 1916	-	-	-	-	-	-	-	+	-	-
300.	<i>Eptesicus gobiensis</i> Bobrinskii, 1926	+	-	-	+	-	-	-	+	-	-
301.	<i>Eptesicus tatei</i> Ellerman & Morrison-Scott, 1951	-	-	-	+	-	-	-	-	-	-
302.	<i>Hesperoptenus tickelli</i> (Blyth, 1851)	-	+	+	+	-	-	-	+	-	+
<b>Tribe Nycticeini Gervais, 1855</b>											
303.	<i>Scotoecus pallidus</i> (Dobson, 1876)	-	-	-	+	-	-	-	-	+	-
304.	<i>Scotomanes ornatus</i> (Blyth, 1851)	-	+	+	+	-	-	-	+	-	-
305.	<i>Scotophilus kuhlii</i> Leach, 1821	-	+	?	+	-	-	-	?	+	+
306.	<i>Scotophilus heathii</i> (Horsfield, 1831)	+	+	?	+	-	-	-	+	+	+
<b>Tribe Pipistrellini Tate, 1942</b>											
307.	<i>Nyctalus noctula</i> (Schreber, 1774)	?	-	?	+	-	-	-	+	+	-
308.	<i>Nyctalus leisleri</i> (Kuhl, 1817)	+	-	-	+	-	-	-	-	+	-
309.	<i>Nyctalus montanus</i> (Barrett-Hamilton, 1906)	+	-	-	+	-	-	-	+	?	-
310.	<i>Pipistrellus pipistrellus</i> (Schreber, 1774)	+	-	-	+	-	-	-	-	+	-
311.	<i>Pipistrellus kuhlii</i> (Kuhl, 1817)	+	-	-	+	-	-	-	-	+	-
312.	<i>Pipistrellus coromandra</i> (Gray, 1838)	+	+	+	+	-	-	-	+	+	+
313.	<i>Pipistrellus javanicus</i> (Gray, 1838)	+	+	?	+	-	-	-	+	+	-
314.	<i>Pipistrellus abramus</i> (Temminck, 1840)	-	-	-	+	-	-	-	-	+	-

315.	<i>Pipistrellus tenuis</i> (Temminck, 1840)	+	+	?	+	-	+	+	+	+	+
316.	<i>Pipistrellus ceylonicus</i> (Kelaart, 1852)	-	+	-	+	-	+	+	+	+	+
317.	<i>Pipistrellus paterculus</i> Thomas, 1915	-	-	-	-	-	+	+	-	-	-
318.	<i>Scotozous dormeri</i> Dobson, 1875	-	+	?	+	-	+	+	-	-	-
<b>Tribe Plecotini Gray, 1866</b>											
319.	<i>Barbastella darjilingensis</i> (Hodgson, 1855)	+	-	+	+	-	+	+	+	+	-
320.	<i>Otonycteris hemprichii</i> Peters, 1859	+	-	-	+	-	+	+	+	+	-
321.	<i>Plecotus homochrous</i> Hodgson, 1847	-	-	?	+	-	+	+	+	+	-
322.	<i>Plecotus wardi</i> Thomas, 1911	+	-	-	+	-	+	+	+	+	-
323.	<i>Plecotus strelkovi</i> Spitzenberger, 2006	+	-	-	+	-	+	+	+	+	-
<b>Tribe Vespertilionini Gray, 1821</b>											
324.	<i>Falstirellus affinis</i> (Dobson, 1871)	-	-	?	-	-	+	+	-	-	+
325.	<i>Hypsugo savii</i> (Bonaparte, 1837)	+	+	-	+	-	+	+	-	-	-
326.	<i>Hypsugo cadornae</i> (Thomas, 1916)	-	-	?	+	-	+	+	-	-	-
327.	<i>Ia io</i> Thomas, 1902	-	-	-	+	-	+	+	-	-	-
328.	<i>Philetor brachypterus</i> (Temminck, 1840)	-	-	-	+	-	+	+	-	-	-
329.	<i>Tylonycteris pachypus</i> (Temminck, 1840)	-	-	?	+	-	+	+	-	-	-
330.	<i>Tylonycteris robustula</i> Thomas, 1915	-	-	-	+	-	+	+	-	-	-
331.	<i>Vespertilio murinus</i> Linnaeus, 1758	+	-	-	+	-	-	+	-	-	-
<b>Subfamily Myotinae Tate, 1942</b>											
332.	<i>Myotis emarginatus</i> (E. Geoffroy, 1806)	+	-	-	-	-	-	-	-	?	-
333.	<i>Myotis formosus</i> (Hodgson, 1835)	+	+	?	+	-	+	+	-	-	-
334.	<i>Myotis hasseltii</i> (Temminck, 1840)	-	-	-	-	-	-	-	-	-	+
335.	<i>Myotis horsfieldii</i> (Temminck, 1840)	-	-	-	-	-	-	-	-	-	-
336.	<i>Myotis muricola</i> (Gray, 1846)	+	-	+	+	-	+	+	+	+	-
337.	<i>Myotis siligorensis</i> (Horsfield, 1855)	-	-	?	+	-	+	+	+	+	-
338.	<i>Myotis blythii</i> (Tomes, 1857)	+	-	-	+	-	+	+	+	+	-
339.	<i>Myotis annectans</i> (Dobson, 1871)	-	-	-	+	-	+	+	-	-	-
340.	<i>Myotis laniger</i> (Peters, 1871)	-	-	-	+	-	+	+	-	-	-

(continued)

Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
341.	<i>Myotis nipalensis</i> (Dobson, 1871)	+	-	?	+	-	+	+	-	-	
342.	<i>Myotis longipes</i> (Dobson, 1873)	+	-	-	+	-	+	-	-	-	
343.	<i>Myotis montivagus</i> (Dobson, 1874)	-	-	-	+	-	-	-	-	-	
344.	<i>Myotis sicarius</i> Thomas, 1915	-	-	-	+	-	+	-	-	-	
345.	<i>Myotis buharensis</i> Kuzyakin, 1950	EX	-	-	-	-	-	-	-	-	
346.	<i>Myotis csorbai</i> Topál, 1997	-	-	-	-	-	+	-	-	-	
<b>Subfamily Murininae Miller, 1907</b>											
347.	<i>Harpiocephalus harpia</i> (Temminck, 1840)	-	?	?	+	-	-	-	-	-	
348.	<i>Murina aurata</i> Milne-Edwards, 1872	-	-	-	+	-	+	-	-	-	
349.	<i>Murina cyclotis</i> Dobson, 1872	-	-	-	+	-	+	-	-	+	
350.	<i>Murina huttoni</i> (Peters, 1872)	-	-	?	+	-	+	-	-	-	
351.	<i>Murina leucogaster</i> Milne-Edwards, 1872	-	-	?	+	-	+	-	-	-	
352.	<i>Murina tubinaris</i> (Scully, 1881)	-	-	-	+	-	+	-	-	-	
353.	<i>Harpiola grisea</i> (Peters, 1872)	-	-	-	+	-	-	-	-	-	
<b>Subfamily Kerivoulinae Miller, 1907</b>											
354.	<i>Kerivoula picta</i> (Pallas, 1767)	-	+	?	+	-	+	-	+	+	
355.	<i>Kerivoula hardwickii</i> (Horsfield, 1824)	-	+	-	+	-	-	-	+	+	
356.	<i>Kerivoula lenis</i> Thomas, 1916	-	-	-	+	-	-	-	-	-	
<b>Family Miniopteridae Miller, 1907</b>											
357.	<i>Miniopterus fuliginosus</i> (Hodgson, 1835)	+	-	?	+	-	+	-	+	+	
358.	<i>Miniopterus pusillus</i> Dobson, 1876	-	-	-	+	-	+	-	-	-	
359.	<i>Miniopterus magnater</i> Sanborn, 1931	-	-	-	+	-	-	-	-	-	
<b>Order Pholidota Weber, 1904</b>											
<b>Family Manidae Gray, 1821</b>											
360.	<i>Manis crassicaudata</i> Gray, 1827	-	+	+	+	-	+	-	+	+	
361.	<i>Manis pentadactyla</i> Linnaeus, 1758	-	+	+	+	-	+	-	+	-	

<b>Order Carnivora Bowdich, 1821</b>											
<b>Suborder Caniformia Kretzoi, 1938</b>											
<b>Family Canidae Fischer de Waldheim, 1817</b>											
362.	<i>Canis aureus</i>	Linnaeus, 1758	+	+	+	+	+	+	+	+	+
363.	<i>Canis lupus</i>	Linnaeus, 1758	+	EX	+	+	+	+	+	+	+
364.	<i>Cuon alpinus</i>	(Pallas, 1811)	-	+	+	+	+	+	+	+	+
365.	<i>Vulpes vulpes</i>	(Linnaeus, 1758)	+	-	+	+	+	+	+	+	+
366.	<i>Vulpes corsac</i>	(Linnaeus, 1768)	+	-	+	+	+	+	+	+	+
367.	<i>Vulpes bengalensis</i>	(Shaw, 1800)	-	+	+	+	+	+	+	+	+
368.	<i>Vulpes rueppellii</i>	(Schinz, 1825)	+	-	+	+	+	+	+	+	+
369.	<i>Vulpes ferrilata</i>	Hodgson, 1842	-	?	+	+	+	+	+	+	+
370.	<i>Vulpes cana</i>	Blanford, 1877	+	-	+	+	+	+	+	+	+
<b>Suborder Feliformia Kretzoi, 1938</b>											
<b>Family Mustelidae Fischer de Waldheim, 1817</b>											
<b>Subfamily Lutrinæ Bonaparte, 1838</b>											
371.	<i>Aonyx cinerea</i>	(Illiger, 1815)	-	+	+	+	+	+	+	+	+
372.	<i>Lutra lutra</i>	(Linnaeus, 1758)	+	+	+	+	+	+	+	+	+
373.	<i>Lutrogale perspicillata</i>	(I. Geoffroy Saint-Hilaire, 1826)	-	+	+	+	+	+	+	+	+
<b>Subfamily Mustelinae Fischer, 1817</b>											
374.	<i>Arctonyx collaris</i>	F. Cuvier, 1825	-	+	+	+	+	+	+	+	+
375.	<i>Martes foina</i>	(Erxleben, 1777)	+	-	+	+	+	+	+	+	+
375.	<i>Martes flavigata</i>	(Boddaert, 1785)	+	-	+	+	+	+	+	+	+
377.	<i>Martes gwatkinskii</i>	Horsfield, 1851	-	-	+	+	+	+	+	+	+
378.	<i>Meles meles</i>	(Linnaeus, 1758)	+	-	+	+	+	+	+	+	+
379.	<i>Mellivora capensis</i>	(Schreber, 1776)	+	-	+	+	+	+	+	+	+
380.	<i>Melogale moschata</i>	(Gray, 1831)	-	-	+	+	+	+	+	+	+
381.	<i>Melogale personata</i>	I. Geoffroy Saint-Hilaire, 1831	-	-	+	+	+	+	+	+	+

(continued)

Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
382.	<i>Mustela erminea</i> Linnaeus, 1758	+	-	-	+	-	+	+	-	-	
383.	<i>Mustela nivialis</i> Linnaeus, 1758	EX	-	-	-	-	-	-	-	-	
384.	<i>Mustela sibirica</i> Pallas, 1773	-	-	+	+	-	+	-	-	-	
385.	<i>Mustela altaica</i> Pallas, 1811	-	-	+	+	-	+	+	-	-	
386.	<i>Mustela kathiah</i> Hodgson, 1835	-	-	+	+	-	+	+	-	-	
387.	<i>Mustela strigtdorsa</i> Gray, 1853	-	-	-	+	-	+	-	-	-	
388.	<i>Vormela peregusna</i> (Guldenstaedt, 1770)	+	-	-	-	-	-	-	-	-	
<b>Family Ailuridae Gray, 1843</b>											
389.	<i>Ailurus fulgens</i> F. G. Cuvier, 1825	-	-	+	+	-	+	-	-	-	
<b>Family Ursidae Fischer de Waldheim, 1817</b>											
390.	<i>Helarctos malayanus</i> (Raffles, 1822)	-	+	-	+	-	+	-	-	-	
391.	<i>Melursus ursinus</i> (Shaw, 1791)	-	+	+	+	-	+	-	+	+	
392.	<i>Ursus arctos</i> Linnaeus, 1758	+	-	-	+	-	+	-	+	+	
393.	<i>Ursus thibetanus</i> (G. Cuvier, 1823)	+	-	-	+	-	+	-	+	+	
<b>Family Felidae Fischer de Waldheim, 1817</b>											
<b>Subfamily Felinae Fischer de Waldheim, 1817</b>											
394.	<i>Acinonyx jubatus</i> (Griffith, 1821)	EX	-	-	EX	-	-	-	EX	-	
395.	<i>Caracal caracal</i> (Schreber, 1776)	+	-	-	+	-	-	-	+	-	
396.	<i>Felis chaus</i> Schreber, 1777	+	+	+	+	-	+	-	+	+	
397.	<i>Felis sylvestris</i> Schreber, 1777	+	-	-	+	-	-	-	+	-	
398.	<i>Felis margarita</i> Loche, 1858	?	-	-	-	-	-	-	+	-	
399.	<i>Lynx lynx</i> (Linnaeus, 1758)	+	-	?	+	-	+	-	-	-	
400.	<i>Otocolobus manul</i> (Pallas, 1776)	+	-	?	+	-	+	-	+	-	
401.	<i>Pardofelis temminckii</i> (Vigors and Horsfield, 1827)	-	+	+	+	-	+	-	-	-	
402.	<i>Pardofelis marmorata</i> (Martin, 1837)	-	EX	+	+	-	+	-	-	-	





<b>Family Moschidae Gray, 1821</b>										
441.	<i>Moschus chrysogaster</i> Hodgson, 1839	-	-	+	+	-	-	+	-	-
442.	<i>Moschus leucogaster</i> Hodgson, 1839	-	-	+	+	-	-	+	-	-
443.	<i>Moschus fuscus</i> Li, 1981	-	-	+	+	-	-	+	-	-
444.	<i>Moschus cupreus</i> Grubb, 1982	+	-	-	-	-	-	-	+	-
<b>Family Cervidae Goldfuss, 1820</b>										
445.	<i>Axis axis</i> (Erxleben, 1777)	-	+	+	+	-	-	+	-	+
446.	<i>Hyelaphus porcinus</i> (Zimmermann, 1780)	-	+	+	+	-	-	+	+	?
447.	<i>Cervus elaphus</i> Linnaeus, 1758	+	-	+	+	-	-	+	-	-
448.	<i>Muntiacus vaghathis</i> (Boddaert, 1785)	-	+	+	+	-	-	+	+	+
449.	<i>Muntiacus putaoensis</i> Amato, Egan & Rabinowitz, 1999	-	-	-	-	-	-	-	-	-
450.	<i>Rucervus divauealii</i> (Cuvier, 1823)	-	EX	?	+	-	-	+	EX	-
451.	<i>Rucervus eldi</i> (McClelland, 1842)	-	-	-	+	-	-	-	-	-
452.	<i>Rusa unicorn</i> (Kerr, 1792)	-	+	+	+	-	-	+	-	+
<b>Family Bovidae Gray, 1821</b>										
<b>Subfamily Antilopinae Gray, 1821</b>										
453.	<i>Antilope cervicapra</i> (Linnaeus, 1758)	-	EX	-	+	-	-	+	EX	-
454.	<i>Gazella subgutturosa</i> (Guldenstaedt, 1780)	+	-	-	-	-	-	-	+	-
455.	<i>Gazella benettii</i> (Sykes, 1831)	+	-	-	+	-	-	+	+	-
456.	<i>Procapra peticaudata</i> (Hodgson, 1846)	-	-	-	+	-	-	+	-	-
<b>Subfamily Bovinae Gray, 1821</b>										
457.	<i>Bos gaurus</i> (H. Smith, 1827)	-	+	+	+	-	-	+	-	-
458.	<i>Bos mutus</i> (Przewalski, 1883)	-	-	-	+	-	-	+	-	-
459.	<i>Boselaphus tragocamelus</i> (Pallas, 1766)	-	EX	-	+	-	-	+	+	-
460.	<i>Bubalus arnee</i> (Kerr, 1792)	-	EX	+	+	-	-	+	-	EX
461.	<i>Tetracerus quadricornis</i> (de Blainville, 1816)	-	-	-	+	-	-	+	-	-
<b>Subfamily Caprinae Gray, 1821</b>										
462.	<i>Budorcas taxicolor</i> Hodgson, 1850	-	-	+	+	-	-	+	-	-

(continued)

Table 2.3 (continued)

S. No.	Taxon	Species present in									
		Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka		
463.	<i>Capra sibirica</i> (Pallas, 1776)	+	-	-	+	-	-	+	-	-	-
464.	<i>Capra aegagrus</i> Erxleben, 1777	-	-	-	-	-	-	-	-	-	-
465.	<i>Capra falconeri</i> (Wagner, 1839)	+	-	-	+	-	-	+	-	-	-
466.	<i>Capricornis thar</i> (Hodgson, 1831)	-	+	+	+	-	-	-	+	-	-
467.	<i>Hemiragrus jemlahicus</i> (H. Smith, 1826)	-	-	+	+	-	-	+	+	-	-
468.	<i>Nemorhaedus goral</i> (Hardwicke, 1825)	-	-	+	+	-	-	+	+	-	-
469.	<i>Nemorhaedus griseus</i> Milne-Edwards, 1872	-	-	-	+	-	-	-	-	-	-
470.	<i>Nemorhaedus bailey</i> Pocock, 1914	-	-	-	+	-	-	-	-	-	-
471.	<i>Nilgiritragus hylocrius</i> (Ogilby, 1838)	-	-	-	+	-	-	-	-	-	-
472.	<i>Ovis ammon</i> (Linnaeus, 1758)	+	-	-	+	-	-	+	-	-	-
473.	<i>Ovis orientalis</i> Gmelin, 1774	+	-	-	+	-	-	-	-	+	-
474.	<i>Pantholops hodgsoni</i> (Abel, 1826)	-	-	-	+	-	-	-	EX	-	-
475.	<i>Pseudois nayaur</i> (Hodgson, 1833)	-	-	+	+	-	-	-	+	-	-
<b>Order Cetacea Brisson, 1762</b>											
<b>Suborder Mysticeti Flower, 1864</b>											
<b>Family Balaenidae Gray, 1821</b>											
476.	<i>Eubalaena australis</i> (Desmoulins, 1822)	-	-	-	+	-	-	-	-	-	-
<b>Family Balanopteridae Gray, 1864</b>											
477.	<i>Balaenoptera musculus</i> (Linnaeus, 1758)	-	-	-	+	-	-	-	-	+	+
478.	<i>Balaenoptera physalus</i> (Linnaeus, 1758)	-	-	-	+	-	-	-	-	+	+
479.	<i>Balaenoptera acutorostrata</i> Lacepede, 1804	-	-	-	+	-	-	-	-	-	+
480.	<i>Balaenoptera edeni</i> Anderson, 1879	-	-	-	+	-	-	-	-	+	+
481.	<i>Megaptera novaeangliae</i> (Borowski, 1781)	-	-	-	+	-	-	-	-	+	+
<b>Suborder Odontoceti Flower, 1867</b>											
<b>Family Delphinidae Gray, 1821</b>											
482.	<i>Delphinus capensis</i> Gray, 1828	-	+	-	+	-	-	+	-	+	+
483.	<i>Feresa attenuata</i> Gray, 1875	-	+	-	+	-	-	+	-	+	+

484.	<i>Globocephala macrorhynchus</i> Gray, 1846	-	+	+	-	+	+	+	-	+	+	+
485.	<i>Grampus griseus</i> (G. Cuvier, 1812)	-	+	+	-	+	+	+	-	+	+	+
486.	<i>Lagenodelphis hosei</i> Fraser, 1956	-	+	+	-	+	+	+	-	+	+	+
487.	<i>Orcella brevirostris</i> (Owen, 1866)	-	+	+	-	+	+	+	-	+	+	+
488.	<i>Orcinus orca</i> (Linnaeus, 1758)	-	+	+	-	+	+	+	-	+	+	+
489.	<i>Peponocephala electra</i> (Gray, 1846)	-	+	+	-	+	+	+	-	+	+	+
490.	<i>Pseudorca crassidens</i> (Owen, 1846)	-	+	+	-	+	+	+	-	+	+	+
491.	<i>Sousa chinensis</i> (Osbeck, 1765)	-	+	+	-	+	+	+	-	+	+	+
492.	<i>Stenella longirostris</i> (Gray, 1828)	-	+	+	-	+	+	+	-	+	+	+
493.	<i>Stenella coeruleoalba</i> (Mayen, 1833)	-	+	+	-	+	+	+	-	+	+	+
494.	<i>Stenella attenuata</i> (Gray, 1846)	-	+	+	-	+	+	+	-	+	+	+
495.	<i>Steno bredanensis</i> (Lesson, 1828)	-	+	+	-	+	+	+	-	+	+	+
496.	<i>Tursiops truncatus</i> (Montagu, 1821)	-	+	+	-	+	+	+	-	+	+	+
497.	<i>Tursiops aduncus</i> (Ehrenberg, 1833)	-	+	+	-	+	+	+	-	+	+	+
<b>Family Phocoenidae Gray, 1825</b>												
498.	<i>Neophocaena phocaenoides</i> (G. Cuvier, 1829)	-	+	+	-	+	+	+	-	+	+	+
<b>Family Physeteridae Gray, 1821</b>												
499.	<i>Physeter macrocephalus</i> Linnaeus, 1758	-	+	+	-	+	+	+	-	+	+	+
<b>Family Kogiidae Miller, 1923</b>												
500.	<i>Kogia breviceps</i> (Blainville, 1838)	-	+	+	-	+	+	+	-	+	+	+
501.	<i>Kogia sima</i> (Owen, 1866)	-	+	+	-	+	+	+	-	+	+	+
<b>Family Platanistidae Gray, 1846</b>												
502.	<i>Platanista gangetica</i> (Roxburgh, 1801)	-	+	+	-	+	+	+	-	+	+	+
<b>Family Ziphiidae Gray, 1865</b>												
503.	<i>Indopacetus pacificus</i> (Longman, 1926)	-	-	-	-	-	-	-	-	-	-	-
504.	<i>Mesoplodon densirostris</i> (Blainville, 1817)	-	-	-	-	-	-	-	-	-	-	-
505.	<i>Mesoplodon ginkgodens</i> Nishiwaki and Kamiya, 1958	-	-	-	-	-	-	-	-	-	-	-
506.	<i>Ziphius cavirostris</i> G. Cuvier, 1823	-	+	+	-	+	+	+	-	+	+	+

(+ Present; - Absent; ? may possibly occur; EX Extinct)

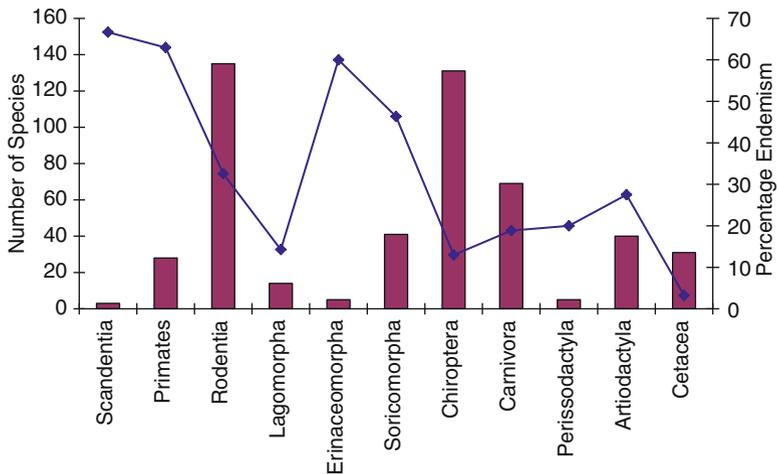
**Table 2.4** Diversity and endemism in mammalian orders and families in South Asia

S. No.	Order	Family	Number of species	Number of endemic species	Percentage endemic
1.	Proboscidea	Elephantidae	1	0	0
2.	Sirenia	Dugongidae	1	0	0
3.	Scandentia	Tupaiaidae	3	2	66.6
4.	Primates	Lorisidae	3	2	66.6
		Cercopithecidae	23	15	65.2
		Hylobatidae	2	0	0
5.	Rodentia	Sciuridae	29	10	34.5
		Gliridae	2	1	50.0
		Dipodidae	6	1	16.7
		Platacanthomyidae	1	1	100.0
		Spalacidae	2	0	0
		Calomyscidae	3	1	33.3
		Cricetidae	18	5	27.8
		Muridae	71	25	35.2
		Hystricidae	3	0	0
6.	Lagomorpha	Ochotonidae	9	0	0
		Leporidae	5	2	40.0
7.	Erinaceomorpha	Erinaceidae	5	3	60.0
8.	Soricomorpha	Soricidae	39	19	49.0
		Talpidae	2	0	0
9.	Chiroptera	Pteropodidae	14	2	14.3
		Rhinolophidae	20	3	15.0
		Hipposideridae	16	5	31.2
		Megadermatidae	2	0	0
		Rhinopomatidae	3	0	0
		Emballonuridae	6	0	0
		Molossidae	4	0	0
		Vespertilionidae	63	7	11.1
		Miniopteridae	3	0	0
10.	Pholidota	Manidae	2	0	0
11.	Carnivora	Canidae	9	1	11.1
		Mustelidae	18	1	5.5
		Ailuridae	1	0	0
		Ursidae	4	1	25.0
		Felidae	17	1	5.9
		Prionodontidae	1	0	0
		Hyaenidae	1	0	0
		Herpestidae	7	4	57.2
		Viverridae	11	5	45.4
12.	Perissodactyla	Equidae	2	0	0
		Rhinocerotidae	3	1	33.3
13.	Artiodactyla	Suidae	2	1	50.0
		Tragulidae	3	3	100.0
		Moschidae	4	1	25.0
		Cervidae	8	2	25.0
		Bovidae	23	4	17.4

(continued)

**Table 2.4** (continued)

S. No.	Order	Family	Number of species	Number of endemic species	Percentage endemic
14.	Cetacea	Balaenidae	1	0	0
		Balaenopteridae	5	0	0
		Delphinidae	16	0	0
		Phocoenidae	1	0	0
		Physeteridae	1	0	0
		Kogiidae	2	0	0
		Platanistidae	1	1	100.0
		Ziphiidae	4	0	0
			506	130	25.69



**Fig. 2.2** Endemism in mammalian orders in South Asia

Primates, Erinaceomorpha, Soricomorpha, and Rodentia (Fig. 2.2). Among the families, maximum endemism was among Platanthomyidae, Tragulidae, Platanistidae (all 100%), Tupaiidae, Lorisidae (all 66.6%), Cercopithecidae (65.2%), Erinaceidae (60%), Herpestidae (57%), Gliridae and Suidae (50%), Soricidae (49%), and Viverridae (45%). Endemism is greater among the large terrestrial mammals (29.78%) than the small terrestrial mammals (26.44%). None of the marine mammals are endemic to South Asia, while *Platanista gangetica* (Rouxburgh, 1801), the only freshwater mammal, is endemic to South Asia.

Of the total endemic species, 80 species are restricted to single countries and 51 species are known from more than one country (Table 2.5). Among the endemics, 54 species are endemic to India, 21 species are endemic to Sri Lanka, and 2 species each are endemic to Nepal and Pakistan. There are no endemic species known from Afghanistan, Bangladesh, Bhutan, and Maldives. Of the rest, 33 species are endemic





Table 2.5 (continued)

Species name		Endemic to									
S. No.	Subspecies name	South Asia	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	
Cb.]	<i>Trachypithecus pileatus tenebricus</i> (Hinton, 1923)	+			+	+					
19.	<i>Trachypithecus geei</i> (Khajuria, 1956)	+			+	+					
<b>Order Rodentia</b>											
<b>Family Sciuridae</b>											
20.	<i>Ratufa macroura</i> (Pennant, 1769)	+				+				+	
20a.	<i>Ratufa macroura macroura</i> (Pennant, 1769)									+	
20b.	<i>Ratufa macroura melanochra</i> Thomas & Wroughton, 1915									+	
20c.	<i>Ratufa macroura dandolena</i> Thomas & Wroughton, 1915					+					
21.	<i>Ratufa indica</i> (Erxleben, 1777)					+					
21a.	<i>Ratufa indica indica</i> (Erxleben, 1777)					+					
21b.	<i>Ratufa indica maxima</i> (Schreber, 1784)					+					
21c.	<i>Ratufa indica centralis</i> Ryley, 1913					+					
22.	<i>Biswamoyopterus biswasi</i> Saha, 1981					+					
23.	<i>Eoglaucomyx fimbriatus</i> (Gray, 1837)	+				+			+		
23a.	<i>Eoglaucomyx fimbriatus fimbriatus</i> (Gray, 1837)					+			+		
23b.	<i>Eoglaucomyx fimbriatus baberi</i> (Blyth, 1847)					+			+		
24.	<i>Petaurista nobilis</i> (Gray, 1842)	+			+	+		+			
24a.	<i>Petaurista nobilis nobilis</i> (Gray, 1842)					+		+			
24b.	<i>Petaurista nobilis singhei</i> Saha, 1977				+	+					
25.	<i>Petinomys fuscocapillus</i> (Jerdon, 1847)	+				+				+	
26.	<i>Funambulus palmarum</i> (Linnaeus, 1766)	+				+				+	
26a.	<i>Funambulus palmarum palmarum</i> (Linnaeus, 1766)					+				+	



Table 2.5 (continued)

S. No.	Species name	Endemic to									
		South Asia	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	
<b>Family Dipodidae Fischer, 1817</b>											
31.	<i>Salpingotulus michaelis</i> (Fitzgibbon, 1966)										+
<b>Family Platacanthomyidae Alston, 1876</b>											
32.	<i>Platacanthomys lasiurus</i> Blyth, 1859				+						
<b>Family Calomyscidae Vorontsov and Potapova, 1979</b>											
33.	<i>Calomyscus baluchi</i> Thomas, 1920	+	+								+
<b>Family Cricetidae Fischer, 1817</b>											
34.	<i>Atilicola roylei</i> (Gray, 1842)					+					
35.	<i>Atilicola albicaudus</i> (True, 1894)					+					
36.	<i>Atilicola montosa</i> (True, 1894)	+				+					+
37.	<i>Hyperacrius wynnei</i> (Blanford 1881)	+				+					+
38.	<i>Hyperacrius fertilis</i> (True, 1894)	+				+					+
<b>Family Muridae Illiger, 1811</b>											
39.	<i>Gerbillus gleadowi</i> Murray, 1886	+				+					+
40.	<i>Apodemus rusiges</i> Miller, 1913					+					
41.	<i>Apodemus gurkha</i> Thomas, 1924									+	
[E.	<i>Bandicota indica</i> (Bechstein, 1800)										
Ea].	<i>Bandicota indica malabarica</i> (Shaw, 1801)					+					
42.	<i>Cremnomys cutchicus</i> Wroughton, 1912					+					
43.	<i>Cremnomys elvira</i> (Ellerman, 1947)					+					
[F.	<i>Golunda ellioti</i> Gray, 1837										
Fa].	<i>Golunda ellioti nuwara</i> (Kelaart, 1850)										+
44.	<i>Hadromys humei</i> (Thomas, 1886)					+					+
45.	<i>Madromys blanfordi</i> (Thomas, 1881)	+				+					+
46.	<i>Millardia meltada</i> (Gray, 1837)	+				+				+	+
47.	<i>Millardia gleadowi</i> (Murray, 1885)	+				+				+	+
48.	<i>Millardia kondana</i> Mishra & Dhandra, 1975	+				+				+	+













101.	<i>Scotozous dormeri</i> Dobson, 1875	+	+	+	+
[F1.]	<i>Tylonycteris pachypus</i> (Temminck, 1840)				
F1a.]	<i>Tylonycteris pachypus aurex</i> (Thomas, 1915)				
[G1.]	<i>Myotis horsfieldii</i> (Temminck, 1840)				
G1a.	<i>Myotis horsfieldii dryas</i> Andersen, 1907				
G1b.]	<i>Myotis horsfieldii peshwa</i> (Thomas, 1915)				
[H1.]	<i>Myotis montivagus</i> (Dobson, 1874)				
H1a.]	<i>Myotis montivagus peytoni</i> Wroughton and Ryley, 1913				
102.	<i>Myotis sicarius</i> Thomas, 1915				+
103.	<i>Myotis csorbai</i> Topál, 1997				+
[I1.]	<i>Harpiocephalus harpia</i> (Temminck, 1840)				
I1a.]	<i>Harpiocephalus harpia madrassius</i> Thomas, 1923				
[J1.]	<i>Murina cyclotis</i> Dobson, 1872				
J1a.]	<i>Murina cyclotis eileenae</i> Phillips, 1932				+
104.	<i>Harpiola grisea</i> (Peters, 1872)				
<b>Order Carnivora Bowdich, 1821</b>					
<b>Family Canidae Fischer de Waldheim, 1817</b>					
[K1.]	<i>Canis aureus</i> Linnaeus, 1758				
K1a.]	<i>Canis aureus naria</i> Wroughton, 1916				+
[L1.]	<i>Cuon alpinus</i> (Pallas, 1811)				
L1a.]	<i>Cuon alpinus dukhunensis</i> (Sykes, 1831)				+
105.	<i>Vulpes bengalensis</i> (Shaw, 1800)				
<b>Family Mustelidae Fischer de Waldheim, 1817</b>					
[M1.]	<i>Aonyx cinerea</i> (Illiger, 1815)				
M1a.]	<i>Aonyx cinerea nirnai</i> (Pocock, 1914)				+
106.	<i>Martes gwatkinskii</i> Horsfield, 1851				+

(continued)

Table 2.5 (continued)

S. No.	Species name Subspecies name	Endemic to									
		South Asia	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	
<b>Family Ursidae Fischer de Waldheim, 1817</b>											
107.	<i>Melursus ursinus</i> (Shaw, 1791)	+		+	+	+	+				+
107a.	<i>Melursus ursinus ursinus</i> (Shaw, 1791)			+	+	+	+				
107b.	<i>Melursus ursinus inornatus</i> Pucheran, 1855			+	+						+
[N1.]	<i>Ursus thibetanus</i> (G. Cuvier, 1823)										
N1a.	<i>Ursus thibetanus gedrosianus</i> Blanford, 1877										+
N1b.]	<i>Ursus thibetanus laniger</i> (Pocock, 1932)	+	+		+						+
<b>Family Felidae Fischer de Waldheim, 1817</b>											
[O1.]	<i>Felis chaus</i> Schreber, 1777										
O1a.	<i>Felis chaus prateri</i> Pocock, 1939				+						+
O1b.]	<i>Felis chaus kelaarti</i> Pocock, 1939				+						
[P1.]	<i>Felis margarita</i> Loche, 1858										
P1a.]	<i>Felis margarita scheffeli</i> Hemmer, 1974										+
108.	<i>Prionailurus rubiginosus</i> (I. Geoffroy, 1831)	+				+					+
108a.	<i>Prionailurus rubiginosus rubiginosus</i> (I. Geoffroy, 1831)				+	+					
108b.	<i>Prionailurus rubiginosus philipsi</i> Pocock, 1939										+
[Q1.]	<i>Panthera leo</i> (Linnaeus, 1758)										
Q1a.]	<i>Panthera leo persica</i> (Meyer, 1826)										
[R1.]	<i>Panthera pardus</i> (Linnaeus, 1758)					+					
R1b.]	<i>Panthera pardus kotiya</i> Deraniyagala, 1956										+
<b>Family Herpestidae Bonaparte, 1845</b>											
[S1.]	<i>Herpestes edwardsii</i> (E. Geoffroy Saint-Hilaire, 1818)										
S1a.	<i>Herpestes edwardsii edwardsii</i> (E. Geoffroy Saint-Hilaire, 1818)					+					+



Table 2.5 (continued)

S. No.	Species name Subspecies name	Endemic to											
		South Asia	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka			
V1a.	<i>Paradoxurus hermaphroditus bondar</i> (Desmarest, 1820)	+				+							
V1b.	<i>Paradoxurus hermaphroditus nictitans</i> Taylor, 1891				+								
V1c.	<i>Paradoxurus hermaphroditus scindiae</i> Pocock, 1934				+								
V1d.]	<i>Paradoxurus hermaphroditus vellerosus</i> Pocock, 1934				+					+			
113.	<i>Paradoxurus aureus</i> F. Cuvier, 1822												+
114.	<i>Paradoxurus montanus</i> Kelaart, 1852												+
115.	<i>Paradoxurus jerdoni</i> Blanford, 1885				+								
115a.	<i>Paradoxurus jerdoni jerdoni</i> Blanford, 1885				+								
115b.	<i>Paradoxurus jerdoni canisicus</i> Pocock, 1933				+								
116.	<i>Paradoxurus stenocephalus</i> Groves et al., 2009					+							+
117.	<i>Viverra civettina</i> Blyth, 1862					+							
[W1.	<i>Viverricula indica</i> (E. Geoffroy Saint-Hillaire, 1803)												
W1a.	<i>Viverricula indica deserti</i> Bonhote, 1898					+						+	
W1b.	<i>Viverricula indica baptistae</i> Pocock, 1933					+						+	
W1c.	<i>Viverricula indica mayori</i> Pocock, 1933					+							+
W1d.]	<i>Viverricula indica wellsi</i> Pocock, 1933					+							
<b>Order Perissodactyla Owen, 1848</b>													
<b>Family Equidae Gray, 1821</b>													
[X1.	<i>Equus hemionus</i> Pallas, 1775												
X1a.]	<i>Equus hemionus khur</i> Lesson, 1827					+							+



Table 2.5 (continued)

S. No.	Species name Subspecies name	Endemic to									
		South Asia	Afghanistan	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka	
<b>Family Bovidae Gray, 1821</b>											
126.	<i>Antelope cervicapra</i> (Linnaeus, 1758)					+					
126a.	<i>Antelope cervicapra cervicapra</i> (Linnaeus, 1758)					+					
126b.	<i>Antelope cervicapra rajputanae</i> Zukowsky, 1927					+					
[C2.	<i>Gazella bennettii</i> (Sykes, 1831)					+					
C2a.	<i>Gazella bennettii bennettii</i> (Sykes, 1831)					+					
C2b.	<i>Gazella bennettii christyi</i> Blyth, 1842					+					
C2c.	<i>Gazella bennettii fuscifrons</i> Blanford, 1873	+				+				+	
C2d.]	<i>Gazella bennettii salinarum</i> Groves, 2003	+				+				+	
127.	<i>Boselaphus tragocamelus</i> (Pallas, 1766)	+				+				+	
[D2.	<i>Bubalus arnee</i> (Kerr, 1792)					+					
D2a.	<i>Bubalus arnee arnee</i> (Kerr, 1792)	+				+				+	
D2b.	<i>Bubalus arnee fuvus</i> (Blanford, 1891)	+			+	+				+	
128.	<i>Tetracerus quadricornis quadricornis</i> (de Blainville, 1816)	+				+				+	
128a.	<i>Tetracerus quadricornis quadricornis</i> (de Blainville, 1816)					+					
128b.	<i>Tetracerus quadricornis iodes</i> Hodgson, 1847					+				+	
128c.	<i>Tetracerus quadricornis subquadricornis</i> Gray, 1843					+					
E2.	<i>Capra aegagrus</i> Erxleben, 1777										
E2a.]	<i>Capra aegargus chialtanensis</i> Lydekker, 1913										+
[F2.	<i>Capra falconeri</i> (Wagner, 1839)										
F2a.	<i>Capra falconeri falconeri</i> (Wagner, 1839)	+				+					+



to two countries, 11 species are endemic to three countries, 2 species are endemic to four countries, and 5 species are endemic to more than four countries. At the subspecies level, 40 taxa are endemic to India, 25 taxa are endemic to Sri Lanka, 2 taxa are endemic to Nepal, and 1 taxon each is endemic to Bhutan and Pakistan. Besides these subspecies, as many as 16 taxa are endemic to South Asia. Furthermore, 90 endemic subspecies are such that belong to 59 species that occur in the regions other than South Asia, among which 34 subspecies are such that occur in more than one country. Of this diversity, maximum number (66) of endemic subspecies occurs in India followed by 23 subspecies in Pakistan, 18 subspecies in Sri Lanka, 8 subspecies in Bangladesh, 6 subspecies each in Bhutan and Nepal, 5 subspecies in Afghanistan, and 2 subspecies in Maldives.

Among the endemic mammals of South Asia, 31 are insular endemic species and 53 are insular endemic subspecies (Table 2.6). As many as 20 species and 35 subspecies are endemic to Sri Lanka, 11 species and 16 subspecies are endemic to Andaman and Nicobar Islands, India, and 2 subspecies are restricted to the Maldives.

The orders represented by the highest number of genera and species from South Asia are the Rodentia (59 genera and 135 species), Chiroptera (44 genera and 131 species), Carnivora (36 genera and 69 species), Artiodactyla (26 genera and 40 species), and Cetacea (23 genera and 31 species). The families represented by the highest number of genera and species from South Asia are the Muridae (24 genera and 71 species), Vespertilionidae (23 genera and 63 species), Bovidae (17 genera and 23 species), and Sciuridae (15 genera and 29 species). Some families that have lesser number of genera and higher number of species are Soricidae (10 genera and 39 species), Rhinolophidae (1 genus and 20 species), Mustelidae (10 genera and 18 species), Cricetidae (9 genera and 18 species), and Hipposideridae (4 genera and 15 species). Forty-six monotypic genera of mammals are found in South Asia which includes eight endemic genera (*Eoglaucmys*, *Madromys*, *Feroculus*, *Scotozous*, *Melursus*, *Porcula*, *Boselaphus*, and *Tetracerus*) in South Asia, six endemic genera (*Anathana*, *Biswamoyopterus*, *Hadromys*, *Caprolagus*, *Latidens*, *Antilope*, and *Nilgiritragus*) in India, and 1 endemic genus (*Solisorex*) in Sri Lanka.

**Table 2.6** List of insular endemic species and subspecies of mammals of South Asia

S. No.	Scientific name	Endemic to		
		Andaman and Nicobar Islands	Sri Lanka	Maldives
<b>Order Proboscidea</b>				
<b>Family Elephantidae</b>				
1.	<i>Elephas maximus maximus</i> Linnaeus, 1758	-	+	-
<b>Order Scandentia</b>				
<b>Family Tupaiidae</b>				
2.	<i>Tupaia nicobarica nicobarica</i> (Zelebor, 1869)	+	-	-
3.	<i>Tupaia nicobarica surda</i> Miller, 1902	+	-	-

(continued)

**Table 2.6** (continued)

S. No.	Scientific name	Endemic to		
		Andaman and Nicobar Islands	Sri Lanka	Maldives
<b>Order Primates</b>				
<b>Family Lorisidae</b>				
4.	<i>Loris tardigradus tardigradus</i> (Linnaeus, 1758)	-	+	-
5.	<i>Loris tardigradus nycticeboides</i> Hill, 1942	-	+	-
6.	<i>Loris lydekkerianus grandis</i> Hill & Phillips, 1932	-	+	-
7.	<i>Loris lydekkerianus nordicus</i> Hill, 1933	-	+	-
<b>Family Cercopithecidae</b>				
8.	<i>Macaca fascicularis umbrosus</i> (Miller, 1902)	+	-	-
9.	<i>Macaca sinica sinica</i> (Linnaeus, 1771)	-	+	-
10.	<i>Macaca sinica aurifrons</i> Pocock, 1931	-	+	-
11.	<i>Macaca sinica opisthomelas</i> Hill, 1942	-	+	-
12.	<i>Trachypithecus vetulus vetulus</i> (Erxleben, 1777)	-	+	-
13.	<i>Trachypithecus vetulus monticola</i> (Kelaart, 1850)	-	+	-
14.	<i>Trachypithecus vetulus nestor</i> (Bennett, 1833)	-	+	-
15.	<i>Trachypithecus vetulus philbricki</i> (Phillips, 1927)	-	+	-
<b>Order Rodentia</b>				
<b>Family Sciuridae</b>				
16.	<i>Ratufa macroura macroura</i> (Pennant, 1769)	-	+	-
17.	<i>Ratufa macroura melanochra</i> Thomas & Wroughton, 1915	-	+	-
18.	<i>Funambulus palmarum brodiei</i> (Blyth, 1849)	-	+	-
19.	<i>Funambulus layardi</i> (Blyth, 1849)	-	+	-
20.	<i>Funambulus sublineatus obscurus</i> (Pelzeln & Kohl, 1886)	-	+	-
<b>Family Muridae</b>				
21.	<i>Golunda ellioti nuwara</i> (Kelaart, 1850)	-	+	-
22.	<i>Mus mayori</i> (Thomas, 1915)	-	+	-
23.	<i>Mus fernandoni</i> (Phillips, 1932)	-	+	-
24.	<i>Rattus palmarum</i> (Zelevor, 1869)	+	-	-
25.	<i>Rattus burrus</i> (Miller, 1902)	+	-	-
26.	<i>Rattus stoicus</i> (Miller, 1902)	+	-	-
27.	<i>Rattus montanus</i> (Phillips, 1932)	-	+	-
28.	<i>Srilankamys ohienensis</i> (Phillips, 1929)	-	+	-
29.	<i>Vandeleuria nolthenii</i> Phillips, 1929	-	+	-

(continued)

**Table 2.6** (continued)

S. No.	Scientific name	Endemic to		
		Andaman and Nicobar Islands	Sri Lanka	Maldives
<b>Order Lagomorpha</b>				
<b>Family Leporidae</b>				
30.	<i>Lepus nigricollis singhala</i> Wroughton, 1915	-	+	-
<b>Order Soricomorpha</b>				
<b>Family Soricidae</b>				
31.	<i>Crocidura andamanensis</i> Miller, 1902	+	-	-
32.	<i>Crocidura nicobarica</i> Miller, 1902	+	-	-
33.	<i>Crocidura hispida</i> Thomas, 1913	+	-	-
34.	<i>Crocidura miya</i> Phillips, 1929	-	+	-
35.	<i>Crocidura jenkinsi</i> Chakraborty, 1978	+	-	-
36.	<i>Crocidura hikmiya</i> Meegaskumbara et al. 2007	-	+	-
37.	<i>Solisorex pearsoni</i> Thomas, 1924	-	+	-
38.	<i>Suncus montanus</i> (Kelaart, 1850)	-	+	-
39.	<i>Suncus zeylanicus</i> Phillips, 1928	-	+	-
40.	<i>Suncus fellowesgordonii</i> Phillips, 1932	-	+	-
<b>Order Chiroptera</b>				
<b>Family Pteropodidae</b>				
41.	<i>Cynopterus sphinx scherzeri</i> Zelebor, 1869	+	-	-
42.	<i>Cynopterus brachyotis brachysoma</i> Dobson, 1871	+	-	-
43.	<i>Pteropus giganteus ariel</i> Allen, 1908	-	-	+
44.	<i>Pteropus hypomelanus geminorum</i> Miller, 1903	+	-	-
45.	<i>Pteropus hypomelanus satyrus</i> Andersen, 1908	+	-	-
46.	<i>Pteropus hypomelanus maris</i> Allen, 1936	-	-	+
47.	<i>Pteropus melanotus melanotus</i> Blyth, 1863	+	-	-
48.	<i>Pteropus melanotus tyleri</i> Dobson, 1874	+	-	-
49.	<i>Pteropus faunulus</i> Miller, 1902	+	-	-
50.	<i>Rousettus leschenaultii seminudus</i> (Kelaart, 1850)	-	+	-
<b>Family Rhinolophidae</b>				
51.	<i>Rhinolophus affinis andamanensis</i> Dobson, 1872	+	-	-
52.	<i>Rhinolophus beddomei sobrinus</i> Andersen, 1918	-	+	-
53.	<i>Rhinolophus cognatus cognatus</i> Andersen, 1906	+	-	-
54.	<i>Rhinolophus cognatus famulus</i> Andersen, 1918	+	-	-
55.	<i>Rhinolophus rouxii rubidus</i> Kelaart, 1850	-	+	-

(continued)

**Table 2.6** (continued)

S. No.	Scientific name	Endemic to		
		Andaman and Nicobar Islands	Sri Lanka	Maldives
<b>Family Hipposideridae</b>				
56.	<i>Hipposideros nicobarulae</i> Miller, 1902	+	-	-
57.	<i>Hipposideros diadema nicobarensis</i> (Dobson, 1871)	+	-	-
58.	<i>Hipposideros lankadiva lankadiva</i> Kelaart, 1850	-	+	-
<b>Family Megadermatidae</b>				
59.	<i>Megaderma spasma ceylonense</i> Andersen, 1918	-	+	-
<b>Family Molossidae</b>				
60.	<i>Chaerephon plicatus insularis</i> (Phillips, 1932)	-	+	-
<b>Family Vespertilionidae</b>				
61.	<i>Pipistrellus ceylonicus ceylonicus</i> (Kelaart, 1852)	-	+	-
62.	<i>Pipistrellus javanicus camortae</i> Miller, 1902	+	-	-
63.	<i>Myotis horsfieldii dryas</i> Andersen, 1907	+	-	-
64.	<i>Murina cyclotis eileenae</i> Phillips, 1932	-	+	-
<b>Order Carnivora</b>				
<b>Family Ursidae</b>				
65.	<i>Melursus ursinus inornatus</i> Pucheran, 1855	-	+	-
<b>Family Felidae</b>				
66.	<i>Panthera pardus kotiya</i> Deraniyagala, 1956	-	+	-
<b>Family Herpestidae</b>				
67.	<i>Herpestes edwardsii lanka</i> (Wroughton, 1915)	-	+	-
68.	<i>Herpestes smithii zeylanicus</i> Thomas, 1921	-	+	-
69.	<i>Herpestes fuscus flavidens</i> Kelaart, 1850	-	+	-
70.	<i>Herpestes fuscus macarthiaae</i> (Gray, 1851)	-	+	-
71.	<i>Herpestes fuscus siccatus</i> Thomas, 1924	-	+	-
72.	<i>Herpestes fuscus rubidior</i> Pocock, 1937	-	+	-
<b>Family Viverridae</b>				
73.	<i>Paguma larvata tytleri</i> (Tytleri, 1864)	+	-	-
74.	<i>Paradoxurus aureus</i> F. Cuvier, 1822	-	+	-
75.	<i>Paradoxurus montanus</i> Kelaart, 1852	-	+	-
76.	<i>Paradoxurus stenocephalus</i> Groves et al., 2009	-	+	-
77.	<i>Viverricula indica mayori</i> Pocock, 1933	-	+	-
<b>Order Artiodactyla</b>				
<b>Family Suidae</b>				
78.	<i>Sus scrofa vittatus</i> Boie, 1828	+	-	-
<b>Family Tragulidae</b>				
79.	<i>Moschiola meminna</i> (Erxleben, 1777)	-	+	-
80.	<i>Moschiola kathygre</i> Groves & Meijaard, 2005	-	+	-

## 2.2 Country-wise Analysis of Mammalian Diversity in South Asia

This section is dedicated to provide a country-wise analysis of the mammalian diversity in South Asia (Table 2.7). Individual country list of mammal species and comments on mammalian diversity is provided.

### 2.2.1 Afghanistan

The mammals of Afghanistan are represented by 124 species belonging to 74 genera, 32 families, and 9 orders (Table 2.8; Fig. 2.3). As Afghanistan is strategically located between the Palearctic and Oriental regions, the mammalian diversity is

**Table 2.7** Number of mammal species in the countries in South Asia including details of endemic, threatened, and extinct species

Country	Total number of species	Number of endemic species	Number of threatened species	Number of extinct species
Afghanistan	124	0	8	7
Bangladesh	134	0	24	11
Bhutan	112	0	29	3
India	426	106	93	2
Maldives	21	0	2	0
Nepal	197	21	28	3
Pakistan	190	21	21	6
Sri Lanka	122	39	30	0

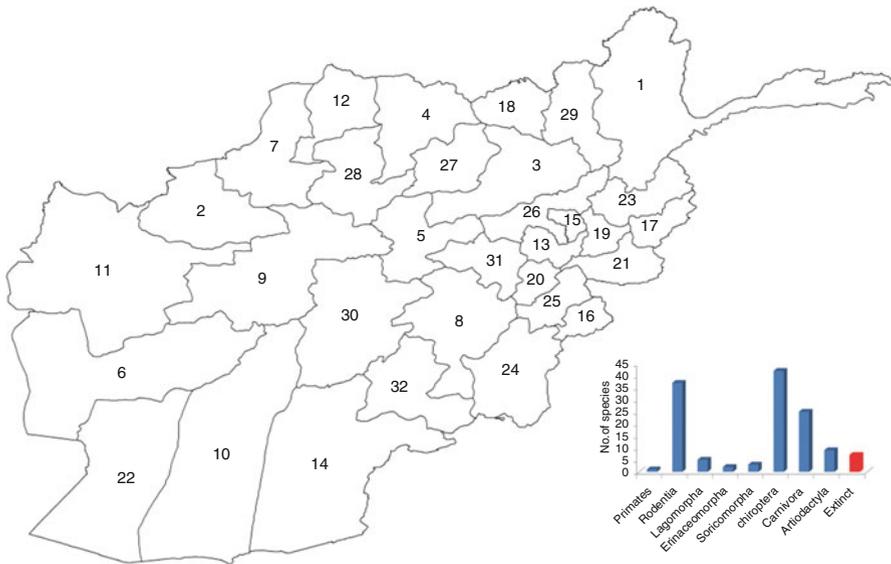
**Table 2.8** Summary of mammal species in Afghanistan

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
<b>I. Terrestrial Mammals</b>					
Primates	Cercopithecidae	1	1	0	0
Rodentia	Sciuridae	5	5	0	0
	Gliridae	1	1	0	0
	Dipodidae	2	4	1	0
	Calomyscidae	1	2	0	0
	Cricetidae	6	8	0	0
	Muridae	8	16	1	0
	Hystricidae	1	1	0	0
	Lagomorpha	Ochotonidae	1	2	0
	Leporidae	1	3	0	0
Erinaceomorpha	Erinaceidae	2	2	0	0
Soricomorpha	Soricidae	2	3	0	0

(continued)

**Table 2.8** (continued)

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
Chiroptera	Rhinolophidae	1	7	0	0
	Hipposideridae	2	2	0	0
	Megadermatidae	1	1	0	0
	Rhinopomatidae	1	3	0	0
	Emballonuridae	1	1	0	0
	Molossidae	2	3	0	0
	Vespertilionidae	10	24	1	1
Carnivora	Miniopteridae	1	1	0	0
	Canidae	2	5	0	0
	Mustelidae	6	8	0	1
	Ursidae	1	2	0	0
	Felidae	7	8	1	3
	Hyaenidae	1	1	0	0
Perissodactyla	Herpestidae	1	1	0	0
	Equidae	0	0	0	1
Artiodactyla	Rhinocerotidae	0	0	0	1
	Suidae	1	1	0	0
	Moschidae	1	1	0	0
	Cervidae	1	1	0	0
9 Orders	Bovidae	3	6	0	0
	<b>32 Families</b>	<b>74</b>	<b>124</b>	<b>4</b>	<b>7</b>



**Fig. 2.3** Map of Afghanistan depicting provinces and species diversity in different families. *Key to the Provinces:* 1. Badakhshan, 2. Badghis, 3. Baghlan, 4. Balkh, 5. Bamian, 6. Farah, 7. Faryab, 8. Ghazni, 9. Ghowr, 10. Helmand, 11. Herat, 12. Jowzjan, 13. Kabul, 14. Kandahar, 15. Kapisa, 16. Khost, 17. Kunar, 18. Konduz, 19. Laghman, 20. Lowgar, 21. Nangarhar, 22. Nimroz, 23. Nuristan, 24. Paktika, 25. Paktiya, 26. Parvan, 27. Samangan, 28. Sar-e-Pol, 29. Takhar, 30. Oruzgan, 31. Vardak, and 32. Zabol

more represented by the Palearctic elements than the Oriental ones. As many as four species may possibly also occur in Afghanistan, while seven species have become extinct from the country in the last 500 years.

## 2.2.2 *Bangladesh*

The mammals of Bangladesh are represented by 134 species belonging to 97 genera, 37 families, and 12 orders (Table 2.9; Fig. 2.4), including 112 species of terrestrial mammals (belonging to 79 genera, 31 families, and 11 orders) and 22 species of aquatic (both freshwater and marine) mammals (belonging to 18 genera, 6 families,

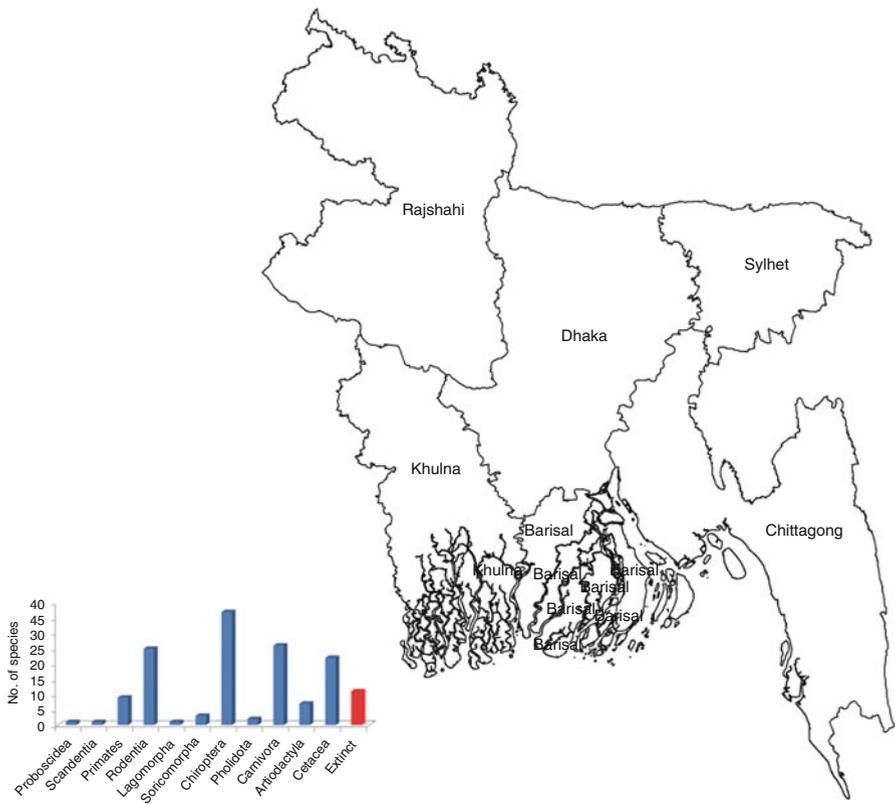
**Table 2.9** Summary of mammal species in Bangladesh

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
<b>I. Terrestrial Mammals</b>					
Proboscidea	Elephantidae	1	1	0	0
Scandentia	Tupaiaidae	1	1	0	0
Primates	Lorisidae	1	1	0	0
	Cercopithecidae	3	7	0	1
	Hylobatidae	1	1	0	0
Rodentia	Sciuridae	5	6	0	0
	Spalacidae	1	1	0	0
	Muridae	10	17	5	0
	Hystriidae	1	1	1	0
Lagomorpha	Leporidae	1	1	0	1
Soricomorpha	Soricidae	1	2	0	0
	Talpidae	1	1	1	0
Chiroptera	Pteropodidae	3	3	0	0
	Rhinolophidae	1	6	1	0
	Hipposideridae	2	5	0	0
	Megadermatidae	1	2	0	0
	Rhinopomatidae	1	2	0	0
	Emballonuridae	2	4	0	0
	Molossidae	1	1	1	0
	Vespertilionidae	11	14	1	0
	Pholidota	Manidae	1	2	0
Carnivora	Canidae	3	3	0	1
	Mustelidae	4	4	1	0
	Ursidae	3	3	0	0
	Felidae	5	7	1	1
	Herpestidae	1	3	0	0
	Viverridae	6	6	0	0
Perissodactyla	Rhinocerotidae	0	0	0	3

(continued)

**Table 2.9** (continued)

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
Artiodactyla	Suidae	1	1	0	0
	Cervidae	4	4	0	1
	Bovidae	2	2	0	3
<b>Total</b>					
11 Orders	31 Families	79	112	12	11
<b>II. Aquatic Mammals</b>					
Cetacea	Delphinidae	13	16	0	0
	Phocoenidae	1	1	0	0
	Physeteridae	1	1	0	0
	Kogiidae	1	2	0	0
	Platanistidae	1	1	0	0
	Ziphiidae	1	1	2	0
<b>Total</b>					
1 Order	6 Families	18	22	2	0
<b>Grand Total</b>					
<b>12 Orders</b>	<b>37 Families</b>	<b>97</b>	<b>134</b>	<b>15</b>	<b>11</b>



**Fig. 2.4** Map of Bangladesh depicting divisions and species diversity in different families

and 1 order). The mammalian diversity includes the South East Asian elements too. As many as 15 species may possibly also occur in Bangladesh, while 11 species have become extinct from the country in the last 500 years.

### 2.2.3 Bhutan

The mammals of Bhutan are represented by 112 species belonging to 83 genera, 35 families, and 12 orders (Table 2.10; Fig. 2.5), including 111 species of terrestrial mammals (belonging to 32 genera, 34 families, and 11 orders) and 1 species of aquatic mammals (belonging to 1 genus, 1 family, and 1 order). The mammalian diversity includes the Indochinese elements too. As many as 57 species may possibly also occur in Bhutan, while 3 species have become extinct from the country in the last 500 years.

**Table 2.10** Summary of mammal species in Bhutan

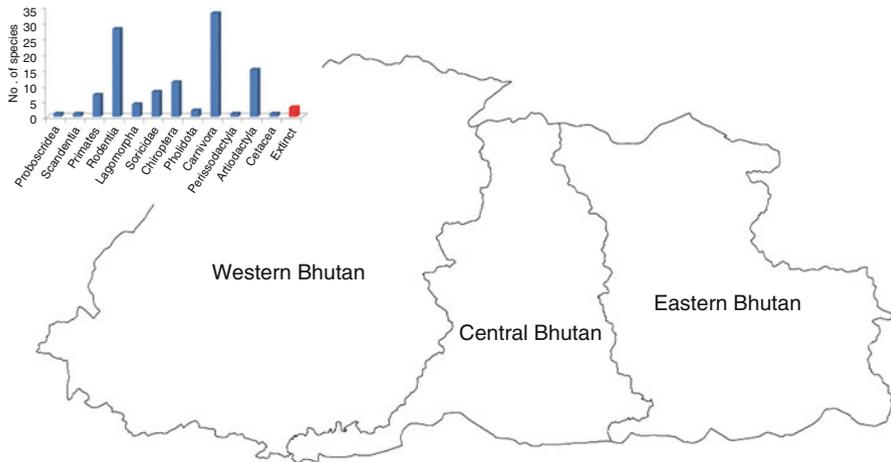
Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
<b>I. Terrestrial Mammals</b>					
Proboscidea	Elephantidae	1	1	0	0
Scandentia	Tupauidae	1	1	0	0
Primates	Lorisidae	1	1	0	0
	Cercopithecidae	3	6	1	0
Rodentia	Sciuridae	9	13	0	0
	Cricetidae	1	1	1	0
	Muridae	7	14	5	0
Lagomorpha	Ochotonidae	1	3	4	0
	Leporidae	1	1	2	0
Soricomorpha	Soricidae	7	7	2	0
	Talpidae	1	1	0	0
Chiroptera	Pteropodidae	4	4	0	0
	Rhinolophidae	1	2	8	0
	Hipposideridae <sup>a</sup>	0	0	5	0
	Megadermatidae <sup>a</sup>	0	0	1	0
	Emballonuridae <sup>a</sup>	0	0	1	0
	Molossidae <sup>a</sup>	0	0	1	0
	Vespertilionidae	5	5	18	0
Miniopteridae <sup>a</sup>	0	0	1	0	
Pholidota	Manidae	1	2	0	0

(continued)

**Table 2.10** (continued)

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
Carnivora	Canidae	3	5	1	0
	Mustelidae	7	9	0	0
	Ailuridae	1	1	0	0
	Ursidae	2	2	0	0
	Felidae	5	9	2	0
	Prionodontidae	1	1	0	0
	Herpestidae	1	3	0	0
	Viverridae	3	3	2	0
Perissodactyla	Equidae <sup>a</sup>	0	0	1	0
	Rhinocerotidae	1	1	0	2
Artiodactyla	Suidae	2	2	0	0
	Moschidae	1	2	0	0
	Cervidae	4	4	1	1
	Bovidae	7	7	0	0
<b>Total</b>					
11 Orders	34 Families	82	111	57	3
<b>II. Aquatic Mammals</b>					
Cetacea	Platanistidae	1	1	0	0
<b>Total</b>					
1 Order	1 Family	1	1	0	0
<b>Grand Total</b>					
<b>12 Orders</b>	<b>35 Families</b>	<b>83</b>	<b>112</b>	<b>57</b>	<b>3</b>

<sup>a</sup>Denotes families whose species may possibly occur



**Fig. 2.5** Map of Bhutan depicting divisions and species diversity in different families

## 2.2.4 India

The mammals of India are represented by 426 species belonging to 199 genera, 52 families, and 14 orders (Table 2.11; Fig. 2.6), including 394 species of terrestrial mammals (belonging to 176 genera, 43 families, and 12 orders) and 31 species of aquatic (both freshwater and marine) mammals (belonging to 23 genera, 9 families,

**Table 2.11** Summary of mammal species in India

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
<b>I. Terrestrial Mammals</b>					
Proboscidea	Elephantidae	1	1	0	0
Scandentia	Tupaiidae	2	3	0	0
Primates	Lorisidae	2	2	0	0
	Cercopithecidae	3	21	0	0
	Hylobatidae	1	2	0	0
Rodentia	Sciuridae	13	26	0	0
	Dipodidae	1	1	0	0
	Platacanthomyidae	1	1	0	0
	Spalacidae	2	2	0	0
	Cricetidae	6	14	0	0
	Muridae	22	55	1	0
	Hystriidae	2	3	0	0
	Lagomorpha	Ochotonidae	1	7	0
	Leporidae	2	4	0	0
Erinaceomorpha	Erinaceidae	2	3	0	0
Soricomorpha	Soricidae	9	30	0	0
	Talpidae	2	2	0	0
Chiroptera	Pteropodidae	8	13	0	0
	Rhinolophidae	1	17	0	0
	Hipposideridae	2	14	0	0
	Megadermatidae	1	2	0	0
	Rhinopomatidae	1	2	0	0
	Emballonuridae	2	6	0	0
	Molossidae	3	4	0	0
	Vespertilionidae	24	57	0	0
	Miniopteridae	1	3	0	0
Pholidota	Manidae	1	2	0	0
Carnivora	Canidae	3	6	0	0
	Mustelidae	8	15	0	0
	Ailuridae	1	1	0	0
	Ursidae	3	4	0	0
	Felidae	8	15	0	1
	Prionodontidae	1	1	0	0
	Hyaenidae	1	1	0	0
	Herpestidae	1	7	0	0
	Viverridae	6	8	0	0

(continued)

**Table 2.11** (continued)

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
Perissodactyla	Equidae	1	2	0	0
	Rhinocerotidae	2	2	0	1
Artiodactyla	Suidae	2	2	0	0
	Tragulidae	1	1	0	0
	Moschidae	1	4	0	0
	Cervidae	5	8	0	0
	Bovidae	16	21	0	0
<b>Total</b>					
12 Orders	43 Families	176	395	1	2
<b>II. Aquatic Mammals</b>					
Sirenia	Dugongidae	1	1	0	0
Cetacea	Balaenidae	1	1	0	0
	Balaenopteridae	2	5	0	0
	Delphinidae	13	16	0	0
	Phocoenidae	1	1	0	0
	Physeteridae	1	1	0	0
	Kogiidae	1	2	0	0
	Platanistidae	1	1	0	0
	Ziphiidae	2	3	0	0
<b>Total</b>					
2 Orders	9 Families	23	31	0	0
<b>Grand Total</b>					
<b>14 Orders</b>	<b>52 Families</b>	<b>199</b>	<b>426</b>	<b>1</b>	<b>2</b>

and 2 orders). The mammalian diversity is mainly composed of South Asian elements but also includes the Palearctic, South East Asian, and Oceanic elements too. One species may possibly also occur in India, while two species have become extinct from the country in the last 500 years.

### 2.2.5 *Maldives*

The mammals of Maldives are poorly documented and are represented by 21 species belonging to 17 genera, 6 families, and 3 orders (Table 2.12), including 2 species of terrestrial mammals (belonging to 1 genus, 1 family, and 1 order) and 19 species of aquatic mammals (belonging to 16 genera, 5 families, and 2 orders).

### 2.2.6 *Nepal*

The mammals of Nepal are represented by 197 species belonging to 115 genera, 38 families, and 12 orders (Table 2.13; Fig. 2.7), including 196 species of terrestrial

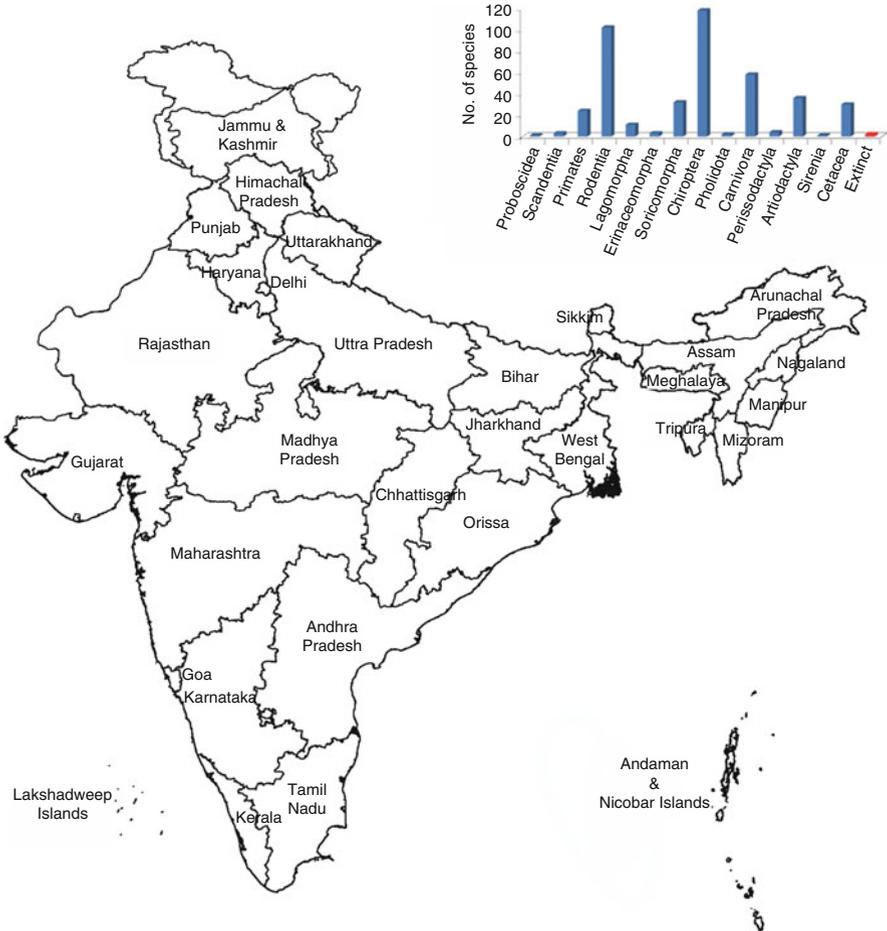


Fig. 2.6 Map of India depicting states and species diversity in different families

mammals (belonging to 114 genera, 37 families, and 11 orders) and 1 species of aquatic (freshwater) mammal (belonging to 1 genus, 1 family, and 1 order). The mammalian diversity is composed of South Asian, Palearctic, and Indochinese elements. As many as four species may possibly also occur in Nepal, while three species have become extinct from the country in the last 500 years.

### 2.2.7 Pakistan

The mammals of Pakistan are represented by 190 species belonging to 116 genera, 42 families, and 12 orders (Table 2.14; Fig. 2.8), including 163 species of terrestrial mammals (belonging to 95 genera, 34 families, and 10 orders) and 27 species of

**Table 2.12** Summary of mammal species in Maldives

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
<b>I. Terrestrial Mammals</b>					
Chiroptera	Pteropodidae	1	2	0	0
<b>Total</b>					
1 Order	1 Family	1	2	0	0
<b>II. Aquatic Mammals</b>					
Sirenia	Dugongidae	1	1	0	0
Cetacea	Delphinidae	11	13	0	0
	Physeteridae	1	1	0	0
	Kogiidae	1	2	0	0
	Ziphiidae	2	2	0	0
<b>Total</b>					
2 Orders	5 Families	16	19	0	0
<b>Grand Total</b>					
<b>3 Orders</b>	<b>6 Families</b>	<b>17</b>	<b>21</b>	<b>0</b>	<b>0</b>

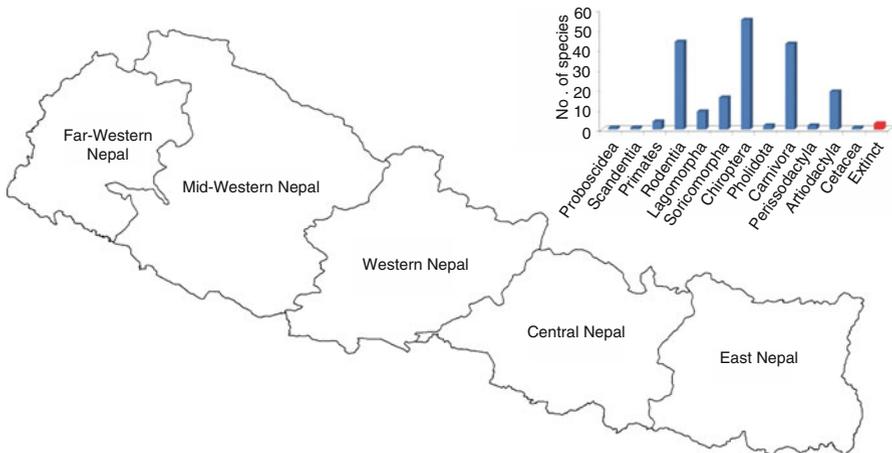
**Table 2.13** Summary of mammal species in Nepal

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
<b>I. Terrestrial Mammals</b>					
Proboscidea	Elephantidae	1	1	0	0
Scandentia	Tupaiaidae	1	1	0	0
Primates	Cercopithecidae	2	4	1	0
Rodentia	Sciuridae	9	12	0	0
	Spalacidae	1	1	0	0
	Cricetidae	4	4	0	0
	Muridae	12	25	0	0
	Hystriidae	2	2	0	0
Lagomorpha	Ochotonidae	1	7	0	0
	Leporidae	1	2	0	1
Soricomorpha	Soricidae	7	15	0	0
	Talpidae	1	1	0	0
Chiroptera	Pteropodidae	5	5	0	0
	Rhinolophidae	1	9	0	0
	Hipposideridae	1	4	0	0
	Megadermatidae	1	1	0	0
	Emballonuridae	1	1	1	0
	Molossidae <sup>a</sup>	0	0	1	0
	Vespertilionidae	15	33	1	0
	Miniopteridae	1	2	0	0
Pholidota	Manidae	1	2	0	0

(continued)

**Table 2.13** (continued)

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species
Carnivora	Canidae	3	6	0	0
	Mustelidae	8	13	0	0
	Ailuridae	1	1	0	0
	Ursidae	2	3	0	0
	Felidae	6	10	0	0
	Prionodontidae	1	1	0	0
	Hyaenidae	1	1	0	0
	Herpestidae	1	3	0	0
	Viverridae	5	5	0	0
Perissodactyla	Equidae	1	1	0	0
	Rhinocerotidae	1	1	0	0
Artiodactyla	Suidae	1	1	0	0
	Tragulidae	1	1	0	0
	Moschidae	1	4	0	0
	Cervidae	4	4	0	0
	Bovidae	9	9	0	2
<b>Total</b>					
11 Orders	37 Families	114	196	4	3
<b>II. Aquatic Mammals</b>					
Cetacea	Platanistidae	1	1	0	0
<b>Total</b>					
1 Order	1 Family	1	1	0	0
<b>Grand Total</b>					
<b>12 Orders</b>	<b>38 Families</b>	<b>115</b>	<b>197</b>	<b>4</b>	<b>3</b>

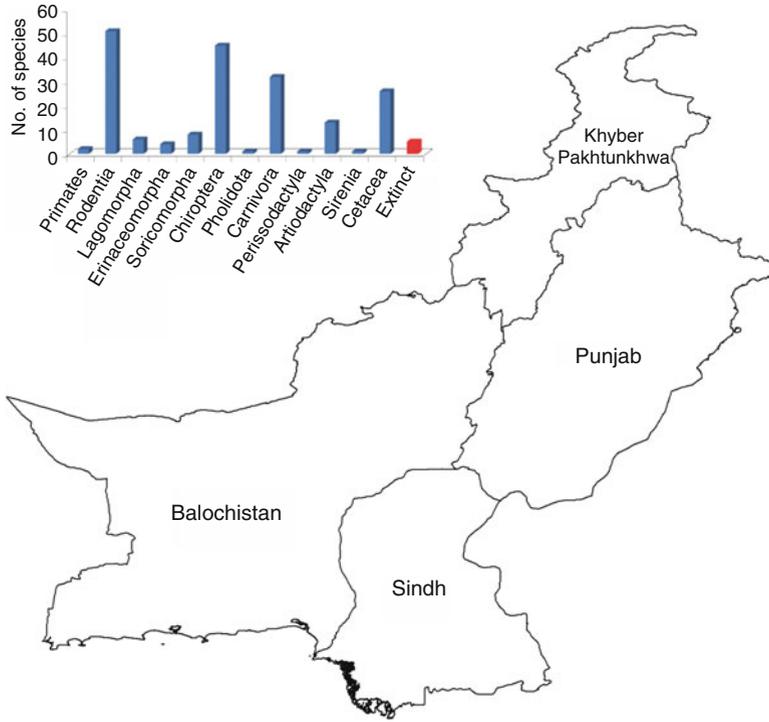


**Fig. 2.7** Map of Nepal depicting divisions and species diversity in different families

aquatic (both freshwater and marine) mammals (belonging to 21 genera, 8 families, and 2 orders). The mammalian diversity is composed of South Asian and Palearctic elements. As many as five species may possibly also occur in Pakistan, while five species have become extinct from the country in the last 500 years.

**Table 2.14** Summary of mammal species in Pakistan

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species	
<b>I. Terrestrial Mammals</b>						
Primates	Cercopithecidae	2	2	0	0	
Rodentia	Sciuridae	6	7	0	0	
	Gliridae	1	2	0	0	
	Dipodidae	4	5	0	0	
	Calomyscidae	1	2	0	0	
	Cricetidae	5	8	0	0	
	Muridae	13	26	0	0	
	Hystricidae	1	1	0	0	
Lagomorpha	Ochotonidae	1	4	0	0	
	Leporidae	1	2	0	0	
Erinaceomorpha	Erinaceidae	2	4	0	0	
Soricomorpha	Soricidae	3	8	2	0	
Chiroptera	Pteropodidae	3	4	0	0	
	Rhinolophidae	1	5	1	0	
	Hipposideridae	3	4	0	0	
	Megadermatidae	1	1	0	0	
	Rhinopomatidae	1	3	0	0	
	Emballonuridae	1	2	0	0	
	Molossidae	1	1	0	0	
	Vespertilionidae	13	25	2	0	
	Pholidota	Manidae	1	1	0	0
	Carnivora	Canidae	2	6	0	0
Mustelidae		6	9	0	0	
Ursidae		1	2	0	0	
Felidae		6	9	0	2	
Hyaenidae		1	1	0	0	
Herpestidae		1	2	0	0	
Viverridae		3	3	0	0	
Perissodactyla	Equidae	1	1	0	0	
	Rhinocerotidae	0	0	0	1	
Artiodactyla	Suidae	1	1	0	0	
	Moschidae	1	1	0	0	
	Cervidae	2	2	0	1	
	Bovidae	5	9	0	1	
<b>Total</b>						
10 Orders	34 Families	95	163	5	5	
<b>II. Aquatic Mammals</b>						
Sirenia	Dugongidae	1	1	0	0	
Cetacea	Balaenopteridae	2	4	0	0	
	Delphinidae	12	15	0	0	
	Phocoenidae	1	1	0	0	
	Physeteridae	1	1	0	0	
	Kogiidae	1	2	0	0	
	Platanistidae	1	1	0	0	
	Ziphiidae	2	2	0	0	
<b>Total</b>						
2 Orders	8 Families	21	27	0	0	
<b>Grand Total</b>						
<b>12 Orders</b>	<b>42 Families</b>	<b>116</b>	<b>190</b>	<b>5</b>	<b>5</b>	



**Fig. 2.8** Map of Pakistan depicting provinces and species diversity in different families

### 2.2.8 Sri Lanka

The mammals of Sri Lanka are represented by 122 species belonging to 78 genera, 34 families, and 11 orders (Table 2.15; Fig. 2.9), including 93 species of terrestrial mammals (belonging to 57 genera, 27 families, and 9 orders) and 29 species of aquatic (marine) mammals (belonging to 21 genera, 7 families, and 2 orders). The mammalian diversity is purely composed of South Asian and Oceanic elements. One species may possibly also occur in Sri Lanka, while one species has become extinct from the country in the last 500 years.

**Table 2.15** Summary of mammal species in Sri Lanka

Order	Family	No. of genus	No. of species	No. of species with possible occurrence	No. of extinct species	
<b>I. Terrestrial Mammals</b>						
Proboscidea	Elephantidae	1	1	0	0	
Primates	Lorisidae	1	2	0	0	
	Cercopithecidae	3	3	0	0	
Rodentia	Sciuridae	4	6	0	0	
	Muridae	9	16	0	0	
	Hystricidae	1	1	0	0	
Lagomorpha	Leporidae	1	1	0	0	
Soricomorpha	Soricidae	4	10	0	0	
Chiroptera	Pteropodidae	3	4	0	0	
	Rhinolophidae	1	2	1	0	
	Hipposideridae	1	5	0	0	
	Megadermatidae	1	2	0	0	
	Emballonuridae	2	3	0	0	
	Molossidae	2	2	0	0	
	Vespertilionidae	7	11	0	0	
	Miniopteridae	1	1	0	0	
	Pholidota	Manidae	1	1	0	0
	Carnivora	Canidae	1	1	0	0
		Mustelidae	1	1	0	0
		Ursidae	1	1	0	0
		Felidae	3	4	0	0
Herpestidae		1	4	0	0	
Viverridae		2	5	0	0	
Artiodactyla	Suidae	1	1	0	0	
	Tragulidae	1	2	0	0	
	Cervidae	3	3	0	0	
	Bovidae	0	0	0	1	
<b>Total</b>						
9 Orders	27 Families	57	93	1	1	
<b>II. Aquatic Mammals</b>						
Sirenia	Dugongidae	1	1	0	0	
Cetacea	Balaenopteridae	2	5	0	0	
	Delphinidae	12	15	0	0	
	Phocoenidae	1	1	0	0	
	Physeteridae	1	1	0	0	
	Kogiidae	1	2	0	0	
	Ziphiidae	3	4	0	0	
<b>Total</b>						
2 Orders	7 Families	21	29	0	0	
<b>Grand Total</b>						
<b>11 Orders</b>	<b>34 Families</b>	<b>78</b>	<b>122</b>	<b>1</b>	<b>1</b>	

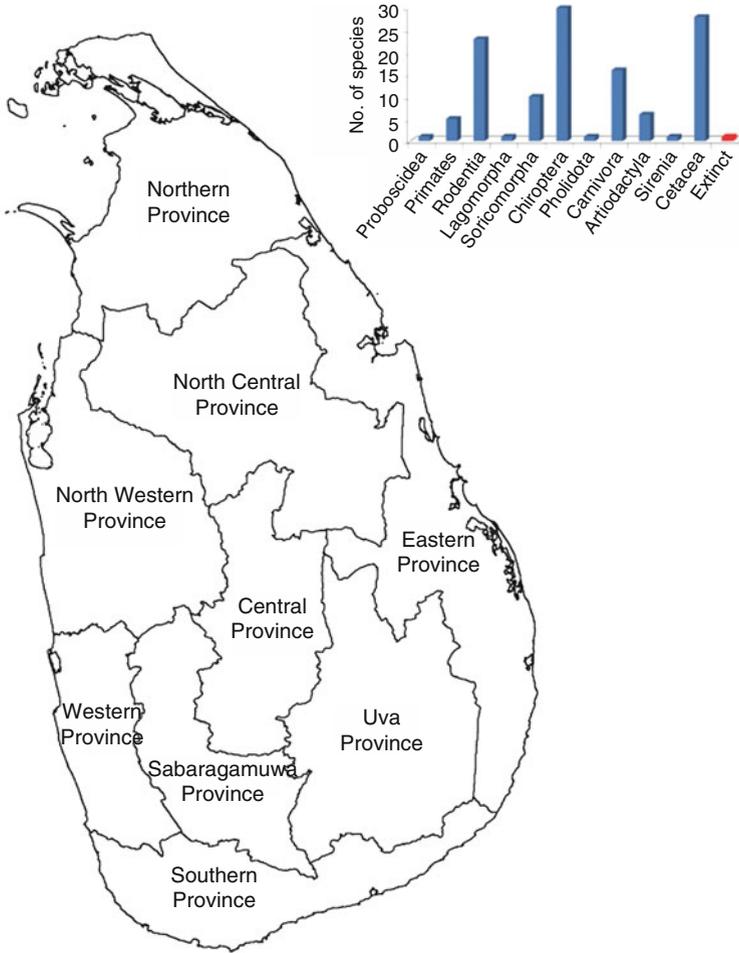


Fig. 2.9 Map of Sri Lanka depicting provinces and species diversity in different families

### 2.3 Extinct Mammals of South Asia

As many as four species of mammals, including three large mammals (*Acinonyx jubatus* (Carnivora, Felidae), known from Afghanistan, India, and Pakistan; *Mustela nivalis* (Carnivora, Mustelidae), known from Afghanistan, and *Rhinoceros sondaicus* (Perissodactyla, Rhinocerotidae) known from Bangladesh and India) and one small mammal (*Myotis buharensis* (Chiroptera, Vespertilionidae), known from Afghanistan), have become extinct from South Asia. The details of other 19 such taxa that have become extinct locally from different countries in South Asia are given in Table 2.16. The status of the numerous data deficient small mammal species

**Table 2.16** Details of extinct mammal species of South Asia

S. No.	Taxon	Extinct from
<b>Taxa extinct from South Asia</b>		
1.	<i>Myotis bucharensis</i> Kuzyakin, 1950 Chiroptera, Vespertilionidae	Afghanistan
2.	<i>Acinonyx jubatus</i> (Griffith, 1821) Carnivora, Felidae	Afghanistan, India and Pakistan
3.	<i>Mustela nivalis</i> Linnaeus, 1758 Carnivora, Mustelidae	Afghanistan
4.	<i>Rhinoceros sondaicus</i> (Desmarest, 1822) Perissodactyla, Rhinocerotidae	Bangladesh, Bhutan and India
<b>Taxa extinct from countries within South Asia</b>		
1.	<i>Macaca arctoides</i> (I. Geoffroy, 1831) Primates, Cercopithecidae	Bangladesh
2.	<i>Caprolagus hispidus</i> (Pearson, 1839) Lagomorpha, Leporidae	Bangladesh and Nepal
3.	<i>Canis lupus</i> Linnaeus, 1758 Carnivora, Canidae	Bangladesh
4.	<i>Pardofelis marmorata</i> (Martin, 1837) Carnivora, Felidae	Bangladesh
5.	<i>Panthera leo persica</i> (Meyer, 1826) Carnivora, Felidae	Afghanistan and Pakistan
6.	<i>Panthera tigris virgata</i> (Illiger, 1815) Carnivora, Felidae	Afghanistan
7.	<i>Equus hemionus khur</i> Lesson, 1827 Perissodactyla, Equidae	Pakistan
8.	<i>Equus hemionus blanfordi</i> (Pocock, 1947) Perissodactyla, Equidae	Afghanistan and Pakistan
9.	<i>Dicerorhinus sumatrensis</i> (Fischer, 1814) Perissodactyla, Rhinocerotidae	Bangladesh and Bhutan
10.	<i>Rhinoceros unicornis</i> Linnaeus, 1758 Perissodactyla, Rhinocerotidae	Afghanistan, Bangladesh and Pakistan
11.	<i>Cervus elaphus wallichi</i> G. Cuvier, 1823 Artiodactyla, Cervidae	Bhutan and India
12.	<i>Rucervus duvaucelii duvaucelii</i> (Cuvier, 1823) Artiodactyla, Cervidae	Pakistan
13.	<i>Rucervus duvaucelii ranjitsinhi</i> (Groves, 1982) Artiodactyla, Cervidae	Bangladesh
14.	<i>Antilope cervicapra cervicapra</i> (Linnaeus, 1758) Artiodactyla, Cervidae	Bangladesh and Nepal
15.	<i>Antilope cervicapra rajputanae</i> Zukowsky, 1927 Artiodactyla, Cervidae	Pakistan
16.	<i>Boselaphus tragocamelus</i> (Pallas, 1766) Artiodactyla, Bovidae	Bangladesh
17.	<i>Bubalus arnee arnee</i> (Kerr, 1792) Artiodactyla, Bovidae	Sri Lanka
18.	<i>Bubalus arnee fulvus</i> (Blanford, 1891) Artiodactyla, Bovidae	Bangladesh
19.	<i>Pantholops hodgsoni</i> (Abel, 1826) Artiodactyla, Bovidae	Nepal

that have been known only from type specimens remains uncertain, and it is assumed that majority of these species might have been exterminated.

## 2.4 Domestic Mammals of South Asia

As many as 15 species of domestic mammals occur in South Asia. In South Asian countries, some domesticated mammals are free ranging and feral (that is, derived from domestic stock but now living quite independently of human control). The domestic mammals of South Asia are—*Oryctolagus cuniculus* (Lagomorpha, Leporidae), *Felis catus* (Carnivora, Felidae), *Canis familiaris* (Carnivora, Canidae), *Equus asinus* (Perissodactyla, Equidae), *Equus caballus* (Perissodactyla, Equidae), *Sus domesticus* (Artiodactyla, Suidae), *Camelus bactrianus* (Artiodactyla, Camelidae), *Camelus dromedarius* (Artiodactyla, Camelidae), *Bos grunniens* (Artiodactyla, Bovidae), *Bos frontalis* (Artiodactyla, Bovidae), *Bos indicus* Linnaeus, 1758 (Artiodactyla, Bovidae), *Bos taurus* (Artiodactyla, Bovidae), *Bubalus bubalis* (Artiodactyla, Bovidae), *Capra hircus* (Artiodactyla, Bovidae), and *Ovis aries* (Artiodactyla, Bovidae).

The summary of the wild species of mammals from which the domestic mammals have arisen and the broad distribution of the domesticated mammals of South Asia is given in Table 2.17.

**Table 2.17** Domestic mammals of South Asia—their wild progenitors and distribution

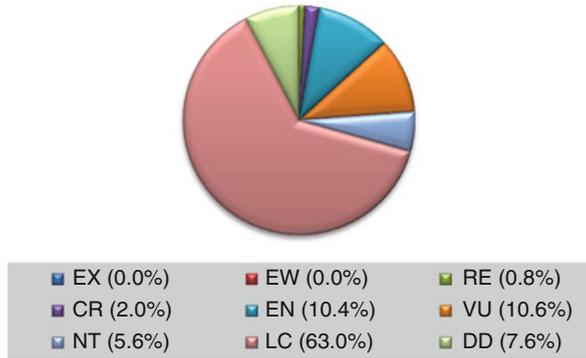
Domestic mammal species	Wild progenitor species	Broad distribution of domestic species in South Asia
<i>Oryctolagus cuniculus</i> (Linnaeus, 1758) Lagomorpha, Leporidae Domestic Rabbit	<i>Oryctolagus cuniculus</i> (Linnaeus, 1758) Lagomorpha, Leporidae Domestic Rabbit	Usually reared as pet, reared for consumption, reared for fur and reared for use in scientific research purposes
<i>Felis catus</i> Linnaeus, 1758 Carnivora, Felidae Domestic Cat	<i>Felis sylvestris</i> Schreber, 1777 Carnivora, Felidae Wild Cat	Throughout; usually reared as pets, and also as feral populations
<i>Canis familiaris</i> Linnaeus, 1758 Carnivora, Canidae Domestic Dog	<i>Canis lupus</i> Linnaeus, 1758 Carnivora, Canidae Domestic Dog	Throughout; usually reared as pets, and also as feral populations
<i>Equus asinus</i> Linnaeus, 1758 Perissodactyla, Equidae Donkey	<i>Equus africanus</i> Heuglin & Fitzinger, 1866 Perissodactyla, Equidae North African Wild Ass	Throughout, but nowhere common; usually reared as beast of burden
<i>Equus caballus</i> Linnaeus, 1758 Perissodactyla, Equidae Domestic Horse	<i>Equus ferus</i> Boddaert, 1785 Perissodactyla, Equidae Russian Wild Horse	Throughout, but nowhere common; pure forms or hybrids with Donkey (as mules) usually reared as beast of burden; also as pets

(continued)

**Table 2.17** (continued)

Domestic mammal species	Wild progenitor species	Broad distribution of domestic species in South Asia
<i>Sus domesticus</i> Erxleben, 1777 Artiodactyla, Suidae Domestic Pig	<i>Sus scrofa</i> Linnaeus, 1758 Artiodactyla, Suidae Wild Pig	Throughout, common; reared for its meat, and also as feral populations
<i>Camelus bactrianus</i> Linnaeus, 1758 Artiodactyla, Camelidae Domestic Bactrian Camel	<i>Camelus ferus</i> Przewalski, 1878 Artiodactyla, Camelidae Wild Bactrian Camel	Restricted to cold deserts of Himalayas in Ladakh and Disputed Kashmir, India, parts of Pakistan and Afghanistan; reared as beast of burden, for its milk and fur, and also as feral populations in some pockets in Nubra Valley
<i>Camelus dromedarius</i> Linnaeus, 1758 Artiodactyla, Camelidae Dromedary Camel	Wild progenitor not known	Restricted to arid and semi-arid regions of northwest India, Pakistan and Afghanistan; reared as beast of burden, for its milk, fur and meat
<i>Bos grunniens</i> Linnaeus, 1766 Artiodactyla, Bovidae Domestic Yak	<i>Bos mutus</i> (Przewalski, 1883) Artiodactyla, Bovidae Wild Yak	Restricted to montane regions of the Himalayas in India, Bhutan and Nepal; reared as beast of burden, for its milk, fur and meat
<i>Bos frontalis</i> Lambert, 1804 Artiodactyla, Bovidae Mithan	<i>Bos gaurus</i> H. Smith, 1827 Artiodactyla, Bovidae Domestic Yak	Restricted to montane regions of the Himalayas in Northeast India and Bhutan; reared as beast of burden, for its milk, fur and meat
<i>Bos indicus</i> Linnaeus, 1758 Artiodactyla, Bovidae Indian Humped Cattle	<i>Bos namadicus</i> Falconer, 1859 Artiodactyla, Bovidae Indian Aurochs (extinct)	Throughout, common; reared for its milk, in some places also as beast of burden or use in agriculture
<i>Bos taurus</i> Linnaeus, 1758 Artiodactyla, Bovidae Common Cattle	<i>Bos primigenius</i> Bojanus, 1827 Artiodactyla, Bovidae European Aurochs (extinct)	Throughout, common; reared for its milk, in some places also as beast of burden or use in agriculture
<i>Bubalus bubalis</i> (Linnaeus, 1758) Artiodactyla, Bovidae Domestic Water Buffalo	<i>Bubalus arnee</i> (Kerr, 1792) Artiodactyla, Bovidae Wild Buffalo	Throughout, common; reared for its milk and also as beast of burden or use in agriculture
<i>Capra hircus</i> Linnaeus, 1758 Artiodactyla, Bovidae Domestic Goat	<i>Capra aegagrus</i> Erxleben, 1777 Artiodactyla, Bovidae Wild Goat	Throughout, common; reared for its milk, meat, fur and also in some places as pets
<i>Ovis aries</i> Linnaeus, 1758 Artiodactyla, Bovidae Domestic Sheep	<i>Ovis orientalis</i> Gmelin, 1774 Artiodactyla, Bovidae Urial	Throughout, common; reared for its milk, meat, fur and also in some places as pets

**Fig. 2.10** Red List status of South Asian mammals



**Table 2.18** Summary status of mammals of South Asia

IUCN Category		Endemics	Non-Endemics	Total
Extinct (EX)		0	0	0
Extinct in the Wild (EW)		0	0	0
Regionally Extinct (RE)		0	4	4
Threatened Category	Critically Endangered (CR)	8	2	10
	Endangered (EN)	33	19	52
	Vulnerable (VU)	25	28	53
Near Threatened (NT)		9	19	28
Least Concern (LC)		39	276	315
Data Deficient (DD)		11	27	38
Not Evaluated (NE)		6	0	6
<b>Total Species</b>		<b>131</b>	<b>375</b>	<b>506</b>

## 2.5 Status of Mammals of South Asia

Approximately one out of every four mammal species (23%) in South Asia is threatened with extinction (Fig. 2.10). Thirty eight of the non-threatened species lack any information, and hence categorized as Data Deficient, while as many as five species have not been evaluated so far. A summary of the status of mammals of South Asia is provided in Table 2.18. The list of threatened mammals of South Asia as sourced from IUCN Red List Database (IUCN 2011) is provided in Table 2.19. As the IUCN Red List Database keeps updating the Red List Assessment status on a regular basis, readers are advised to refer <http://www.iucnredlist.org> for updated information on species of interest.

Species belonging to orders Proboscidea and Sirenia are threatened with extinction. More than 50% of species belonging to orders Perissodactyla (60%), Primates (55.5%), and Artiodactyla (55.0%) are threatened (Table 2.20). Between 6.0 and 33.3% of species belonging to orders Scandentia (33.3%), Soricomorpha (30.0%), Carnivora (29.3%), Cetacea (19.3%), Rodentia (17.3%), Lagomorpha (7.1%), and

**Table 2.19** List of threatened mammal species of South Asia

Scientific name (Order, Family)	Common name	Red List category	Endemic?
Critically endangered			
<i>Porcula salvania</i> (Artiodactyla, Suidae)	Pygmy Hog	CR C2a(ii)	Yes
<i>Viverra civettina</i> (Carnivora, Viverridae)	Malabar Large Spotted Civet	CR C2a(i)	Yes
<i>Orcaella brevirostris</i> <sup>a</sup> (Cetacea, Delphinidae)	Irrawaddy Dolphin	CR C2a(i,ii); D	
<i>Dicerorhinus sumatrensis</i> (Perissodactyla, Rhinocerotidae)	Sumatran Rhinoceros	CR A2abd; C1 + 2a(i)	
<i>Cremnomys elvira</i> (Rodentia, Muridae)	Elvira Cremnomys	CR B 1ab(iii) + 2ab(iii)	Yes
<i>Millardia kondana</i> (Rodentia, Muridae)	Large Metad	CR B 1ab(iii) + 2ab(iii)	Yes
<i>Biswamoyopterus biswasi</i> (Rodentia, Sciuridae)	Namdapha Flying Squirrel	CR B 1ab(iii)	Yes
<i>Crociodura andamanensis</i> (Soricomorpha, Soricidae)	Andaman White- toothed Shrew	CR B 1ab(iii)	Yes
<i>Crociodura jenkinsi</i> (Soricomorpha, Soricidae)	Jenkin's Andaman Spiny Shrew	CR B 1ab(iii)	Yes
<i>Crociodura nicobarica</i> (Soricomorpha, Soricidae)	Nicobar Shrew	CR B 1ab(ii,iii)	Yes
Endangered			
<i>Bubalus arnee</i> (Artiodactyla, Bovidae)	Wild Buffalo	EN e + 3cde + 4cde; C1	
<i>Capra falconeri</i> (Artiodactyla, Bovidae)	Markhor	EN C1 + 2a(i)	
<i>Nilgiritragus hylocrius</i> (Artiodactyla, Bovidae)	Nilgiri Tahr	EN C2a(i)	Yes
<i>Pantholops hodgsonii</i> (Artiodactyla, Bovidae)	Tibetan Antelope	EN A2d	
<i>Hyelaphus porcinus</i> (Artiodactyla, Cervidae)	Hog-Deer	EN A2bcd	
<i>Rucervus eldi</i> (Artiodactyla, Cervidae)	Eld's Deer	EN A2cd + 3cd + 4cd	
<i>Moschus chrysogaster</i> (Artiodactyla, Moschidae)	Golden-bellied Musk Deer	EN A2cd	
<i>Moschus cupreus</i> (Artiodactyla, Moschidae)	Kashmir Musk Deer	EN A2d	Yes
<i>Moschus fuscus</i> (Artiodactyla, Moschidae)	Dwarf Musk Deer	EN A2cd	
<i>Moschus leucogaster</i> (Artiodactyla, Moschidae)	White-bellied Musk Deer	EN A2d	
<i>Cuon alpinus</i> (Carnivora, Canidae)	Dhole	EN C2a(i)	
<i>Panthera tigris</i> (Carnivora, Felidae)	Tiger	EN A2bcd + 4bcd; C1 + 2a(i)	

(continued)

**Table 2.19** (continued)

Scientific name (Order, Family)	Common name	Red List category	Endemic?
<i>Prionailurus viverrinus</i> (Carnivora, Felidae)	Fishing Cat	EN A2cd+4cd	
<i>Panthera uncia</i> (Carnivora, Felidae)	Snow Leopard	EN C1	
<i>Balaenoptera musculus</i> <sup>b</sup> (Cetacea, Balaenopteridae)	Blue Whale	EN A1abd	
<i>Balaenoptera physalus</i> (Cetacea, Balaenopteridae)	Fin Whale	EN A1d	
<i>Megaptera novaeangliae</i> (Cetacea, Balaenopteridae) <sup>c</sup>	Humpback Whale	EN D	
<i>Platanista gangetica</i> (Cetacea, Platanistidae)	Gangetic Dolphin	EN A2abcde	Yes
<i>Hipposideros durgadasi</i> (Chiroptera, Hipposideridae)	Durga Das's Leaf-nosed Bat	EN B1ab(iii)+2ab(iii)	Yes
<i>Hipposideros hypophyllus</i> (Chiroptera, Hipposideridae)	Kolar Leaf- nosed Bat	EN B1ab(iii)+2ab(iii)	Yes
<i>Latidens salimalii</i> (Chiroptera, Pteropodidae)	Salim Ali's Fruit Bat	EN B1ab(iii)+2ab(iii)	Yes
<i>Rhinolophus cognatus</i> (Chiroptera, Rhinolophidae)	Andaman Horseshoe Bat	EN B1ab(iii)+2ab(iii)	Yes
<i>Caprolagus hispidus</i> (Lagomorpha, Leporidae)	Hispid Hare	EN B2ab(ii,iii,v)	Yes
<i>Equus hemionus</i> (Perissodactyla, Equidae)	Onager	EN A2abc+3bd	
<i>Manis pentadactyla</i> (Pholidota, Manidae)	Chinese Pangolin	EN A2d+3d+4d	
<i>Macaca munzala</i> (Primates, Cercopithecidae)	Arunachal Macaque	EN B1ab(v);D	Yes
<i>Macaca silenus</i> (Primates, Cercopithecidae)	Lion-tailed Macaque	EN C2a(i)	Yes
<i>Macaca sinica</i> (Primates, Cercopithecidae)	Toque Macaque	EN A2cd	Yes
<i>Semnopithecus ajax</i> (Primates, Cercopithecidae)	Himalayan Gray Langur	EN B1ab(iii)+2ab(iii)	Yes

(continued)

**Table 2.19** (continued)

Scientific name (Order, Family)	Common name	Red List category	Endemic?
<i>Trachypithecus geei</i> (Primates, Cercopithecidae)	Gee's Golden Langur	EN A2c; C2a(i)	Yes
<i>Trachypithecus phayrei</i> (Primates, Cercopithecidae)	Phayre's Leaf Monkey	EN A2cd	
<i>Trachypithecus vetulus</i> (Primates, Cercopithecidae)	Purple-faced Langur	EN A2cd+3cd+4cd	Yes
<i>Hoolock hoolock</i> (Primates, Hylobatidae)	Western Hoolock Gibbon	EN A2acd+3cd+4acd	
<i>Loris tardigradus</i> (Primates, Lorisidae)	Red Slender Loris	EN C2a(i)	Yes
<i>Elephas maximus</i> (Proboscidea, Elephantidae)	Asian Elephant	EN A2c	
<i>Apodemus gurkha</i> (Rodentia, Muridae)	Himalayan Wood Mouse	EN B1ab(iii)	Yes
<i>Hadromys humei</i> (Rodentia, Muridae)	Hume's Rat	EN B1ab(iii)+2ab(iii)	Yes
<i>Mus famulus</i> (Rodentia, Muridae)	Bonhote's Mouse	EN B1ab(ii,iii)	Yes
<i>Mus fernandoni</i> (Rodentia, Muridae)	Ceylon Spiny Mouse	EN B2ab(iii)	Yes
<i>Rattus burrus</i> (Rodentia, Muridae)	Miller's Nicobar Rat	EN B1ab(iii)	Yes
<i>Rattus montanus</i> (Rodentia, Muridae)	Nilлу Rat	EN B1ab(iii)+2ab(iii)	Yes
<i>Rattus ranjiniiae</i> (Rodentia, Muridae)	Ranjini's Field Rat	EN B2ab(iii)	Yes
<i>Vandeleuria nilagirica</i> (Rodentia, Muridae)	Nilgiri Tree Mouse	EN B1ab(iii)+2ab(iii)	Yes
<i>Vandeleuria nolthenii</i> (Rodentia, Muridae)	Ceylon Highland Tree Mouse	EN B1ab(iii)+2ab(iii)	Yes
<i>Tupaia nicobarica</i> (Scandentia, Tupaiidae)	Nicobar Treeshrew	EN B1ab(iii)	Yes
<i>Crocidura miya</i> (Soricomorpha, Soricidae)	Sri Lankan Long-tailed Shrew	EN B1ab(iii)+2ab(iii)	Yes
<i>Crocidura hikmiya</i> (Soricomorpha, Soricidae)	Sinharaja Shrew	EN B1ab(iii)+2ab(iii)	Yes
<i>Feroculus feroculus</i> (Soricomorpha, Soricidae)	Kelaart's Long- clawed Shrew	EN B1ab(ii,iii)+2ab(ii,iii)	Yes
<i>Solisorex pearsoni</i> (Soricomorpha, Soricidae)	Pearson's Long- clawed Shrew	EN B1ab(iii)+2ab(iii)	Yes
<i>Suncus dayi</i> (Soricomorpha, Soricidae)	Day's Shrew	EN B1ab(ii,iii)+2ab(ii,iii)	Yes

(continued)

**Table 2.19** (continued)

Scientific name (Order, Family)	Common name	Red List category	Endemic?
<i>Suncus fellowesgordoni</i> (Soricomorpha, Soricidae)	Ceylon Pygmy Shrew	EN B1ab(iii)+2ab(iii)	Yes
<i>Suncus zeylanicus</i> (Soricomorpha, Soricidae)	Ceylon Jungle Shrew	EN B2ab(iii)	Yes
Vulnerable			
<i>Bos gaurus</i> (Artiodactyla, Bovidae)	Gaur	VU A2cd+3cd+4cd	
<i>Bos mutus</i> (Artiodactyla, Bovidae)	Wild Yak	VU A2ac+3c+4c	
<i>Budorcas taxicolor</i> (Artiodactyla, Bovidae)	Takin	VU A2cd	
<i>Gazella subgutturosa</i> (Artiodactyla, Bovidae)	Goitered Gazelle	VU A2ad	
<i>Naemohedus baileyi</i> (Artiodactyla, Bovidae)	Red Goral	VU C2a(i)	
<i>Naemohedus griseus</i> (Artiodactyla, Bovidae)	Chinese Goral	VU A2d	
<i>Ovis orientalis</i> (Artiodactyla, Bovidae)	Urrial	VU A2cde	
<i>Tetracerus quadricornis</i> (Artiodactyla, Bovidae)	Four-horned Antelope	VU C2a(i)	Yes
<i>Rucervus duvaucelii</i> (Artiodactyla, Cervidae)	Barasingha	VU C1	Yes
<i>Rusa unicolor</i> (Artiodactyla, Cervidae)	Sambar	VU A2cd+3cd+4cd	
<i>Ailurus fulgens</i> (Carnivora, Ailuridae)	Red Panda	VU C1	
<i>Neofelis nebulosa</i> (Carnivora, Felidae)	Clouded Leopard	VU C1+2a(i)	
<i>Panthera leo</i> (Carnivora, Felidae)	Lion	VU A2abcd	
<i>Pardofelis marmorata</i> (Carnivora, Felidae)	Marbled Cat	VU C1+2a(i)	
<i>Prionailurus rubiginosus</i> (Carnivora, Felidae)	Rusty-spotted Cat	VU C2a(i)	Yes
<i>Herpestes fuscus</i> (Carnivora, Herpestidae)	Indian Brown Mongoose	VU A2c	Yes
<i>Aonyx cinerea</i> (Carnivora, Mustelidae)	Oriental Small- clawed Otter	VU A2acd	
<i>Lutrogale perspicillata</i> (Carnivora, Mustelidae)	Smooth-coated Otter	VU A2acd	
<i>Martes gwatkinsii</i> (Carnivora, Mustelidae)	Nilgiri Marten	VU B1ab(iii, iv)	Yes
<i>Vormela peregusna</i> (Carnivora, Mustelidae)	Marbled Polecat	VU A2c	
<i>Helarctos malayanus</i> (Carnivora, Ursidae)	Sun Bear	VU A2cd+3cd+4cd	

(continued)

**Table 2.19** (continued)

Scientific name (Order, Family)	Common name	Red List category	Endemic?
<i>Melursus ursinus</i> (Carnivora, Ursidae)	Sloth Bear	VU A2cd+4cd;C1	Yes
<i>Ursus thibetanus</i> (Carnivora, Ursidae)	Asian Black Bear	VU A2cd+3d+4d	
<i>Arctictis binturong</i> (Carnivora, Viverridae)	Binturong	VU A2cd	
<i>Neophocaena phocaenoides</i> (Cetacea, Phocoenidae)	Finless Porpoise	VU A2cde	
<i>Physeter macrocephalus</i> (Cetacea, Physeteridae)	Sperm Whale	VU A1d	
<i>Pteropus faunulus</i> (Chiroptera, Pteropodidae)	Nicobar Flying Fox	VU B1ab(i,ii,iii,iv,v)+2ab(i,ii, iii,iv,v)	Yes
<i>Pteropus melanotus</i> (Chiroptera, Pteropodidae)	Black-eared Flying Fox	VU A2cde	
<i>Rhinolophus mehelyi</i> (Chiroptera, Rhinolophidae)	Mehely's Horseshoe Bat	VU A4c	
<i>Myotis sicarius</i> (Chiroptera, Vespertilionidae)	Mandelli's Mouse-eared Myotis	VU B2ab(iii)	Yes
<i>Rhinoceros unicornis</i> (Perissodactyla, Rhinocerotidae)	Great One-horned Rhinoceros	VU B1ab(iii)	Yes
<i>Macaca arctoides</i> (Primates, Cercopithecidae)	Stump-tailed Macaque	VU A3cd+4cd	
<i>Macaca leonina</i> (Primates, Cercopithecidae)	Northern Pig-tailed Macaque	VU A2cd+3cd+4cd	
<i>Semnopithecus hypoleucos</i> (Primates, Cercopithecidae)	Dark-legged Malabar Langur	VU A2d	Yes
<i>Trachypithecus johnii</i> (Primates, Cercopithecidae)	Nilgiri Langur	VU C2a(i)	Yes
<i>Trachypithecus pileatus</i> (Primates, Cercopithecidae)	Capped Langur	VU A2cd+3cd	
<i>Nycticebus bengalensis</i> (Primates, Lorisidae)	Bengal Slow Loris	VU A2acd+3cd+4acd	
<i>Hoolock leuconedys</i> (Primates, Hylobatidae)	Eastern Hoolock Gibbon	VU A3cd	
<i>Alticola montosa</i> (Rodentia, Cricetidae)	Kashmir Mountain Vole	VU B2ab(iii)	Yes

(continued)

**Table 2.19** (continued)

Scientific name (Order, Family)	Common name	Red List category	Endemic?
<i>Hyperacrius fertilis</i> (Rodentia, Cricetidae)	Subalpine Kashmir Vole	VU B2ab(iii)	Yes
<i>Dryomys niethammeri</i> (Rodentia, Gliridae)	Niethammer's Forest Dormouse	VU B1ab(iii)	Yes
<i>Mus mayori</i> (Rodentia, Muridae)	Mayor's Mouse	VU B2ab(iii)	Yes
<i>Rattus palmarum</i> (Rodentia, Muridae)	Car Nicobar Rat	VU D2	
<i>Rattus satarae</i> (Rodentia, Muridae)	Sahyadri's Forest Rat	VU B2ab(i,ii,iii,iv,v)	Yes
<i>Rattus stoicus</i> (Rodentia, Muridae)	Andaman Rat	VU D2	Yes
<i>Srilankamys ohiensis</i> (Rodentia, Muridae)	Ohiya Rat	VU B1ab(iii) + 2ab(iii)	Yes
<i>Platacanthomys lasiurus</i> (Rodentia, Platacanthomyidae)	Malabar Spiny Dormouse	VU B2ab(ii,iii)	
<i>Funambulus layardi</i> (Rodentia, Sciuridae)	Layard's Striped Squirrel	VU A3c + 4c; B1ab(i,ii,iii)	Yes
<i>Funambulus sublineatus</i> (Rodentia, Sciuridae)	Dusky-striped Squirrel	VU B2ab(i,ii,iii)	Yes
<i>Petaurista nobilis</i> (Rodentia, Sciuridae)	Noble Giant Flying Squirrel	VU A4c	Yes
<i>Dugong dugon</i> (Sirenia, Dugongidae)	Dugong	VU A2bcd	
<i>Crocodyra hispida</i> (Soricomorpha, Soricidae)	Andaman Shrew	VU D2	Yes
<i>Suncus montanus</i> (Soricomorpha, Soricidae)	Sri Lankan Highland Shrew	VU B2b(ii,iii)	Yes

<sup>a</sup>As Ayeyarwady River subpopulation

<sup>b</sup>As subspecies *brevicauda*, Data Deficient

<sup>c</sup>As Arabian Sea subpopulation

Chiroptera (6.1%) are threatened to extinction in South Asia. Order Erinaceomorpha is only such in which no species is threatened.

Extinct taxa—*Acinonyx jubatus venaticus* (Griffith, 1821), *Mustela nivalis stoliczka* Blandford, 1877, *Rhinoceros sondaicus inermis* Lesson, 1840, and *Myotis bucharensis* Kuzyakin, 1950.

The country-wise summary of the red list status of mammals is provided in Table 2.21. In Afghanistan, there are only non-endemic species, of which the non-threatened species are more than the threatened species (111 vs. 8 species), and same is the case with Bangladesh (101 vs. 24 species), Bhutan (81 vs. 29 species), and Maldives (10 vs. 2 species). Endemic mammal species were found only in India (105 species), Sri Lanka (39 species), Pakistan (22 species), and Nepal (21 species).

**Table 2.20** Red List status of mammal species of South Asia by taxonomic order

Order	Total <sup>a</sup>	RE	CR	EN	VU	NT	LC	DD	% Threatened	% Extinct or regionally extinct
Proboscidea	1			1					100.0	0.0
Sirenia	1				1				100.0	0.0
Scandentia	3			1			2		33.3	0.0
Primates	28			9	7	4	8		57.2	0.0
Rodentia	135		3	9	12	7	95	9	17.8	0.0
Lagomorpha	14			1			13		7.1	0.0
Erinaceomorpha	5						5		0.0	0.0
Soricomorpha	40		3	7	2		23	5	30.0	0.0
Chiroptera	130	1		4	4		113	8	6.1	0.7
Pholidota	2			1		1			50.0	0.0
Carnivora	65	2	1	5	13	9	34	1	29.3	3.0
Perissodactyla	5	1	1	1	1		1		60.0	20.0
Artiodactyla	40		1	10	11	6	11	1	55.0	0.0
Cetacea	31		1	3	2	1	10	14	19.3	0.0
<b>Total</b>	<b>500</b>	<b>4</b>	<b>10</b>	<b>52</b>	<b>53</b>	<b>28</b>	<b>315</b>	<b>38</b>	<b>23.0</b>	<b>0.8</b>

<sup>a</sup>Excluding “Not Evaluated” species

**Table 2.21** Country-wise summary of the Red List status of endemic and non-endemic mammal species of South Asia

Country	Total <sup>a</sup>	RE	CR	EN	VU	NT	LC	DD	NE
<b>Afghanistan (124 species)</b>									
Endemic	0	0	0	0	0	0	0	0	0
Non-endemic	124	3	0	3	5	5	106	2	3
<b>Bangladesh (134 species)</b>									
Endemic	0	0	0	0	0	0	0	0	0
Non-endemic	134	0	1	9	14	10	91	9	0
<b>Bhutan (112 species)</b>									
Endemic	0	0	0	0	0	0	0	0	0
Non-endemic	112	1	1	13	15	12	67	4	0
<b>India (426 species)</b>									
Endemic	105	0	8	22	20	9	36	8	2
Non-endemic	321	2	1	18	25	18	232	25	2
<b>Maldives (21 species)</b>									
Endemic	0	0	0	0	0	0	0	0	0
Non-endemic	21	0	0	0	2	0	10	9	0
<b>Nepal (197 species)</b>									
Endemic	21	0	0	3	6	1	9	2	0
Non-endemic	176	0	0	10	9	15	135	7	0
<b>Pakistan (190 species)</b>									
Endemic	22	0	0	2	3	1	14	2	0
Non-endemic	168	1	0	7	9	8	131	13	0
<b>Sri Lanka (122 species)</b>									
Endemic	39	0	0	12	8	3	12	1	3
Non-endemic	83	0	0	6	4	3	56	14	0

<sup>a</sup>Excluding “Regionally Extinct” and “Not Evaluated” species

Among the endemics, maximum threatened species are found in India (50 threatened vs. 45 non-threatened species), Sri Lanka (20 vs. 15 species), Nepal (9 vs. 10 species), and Pakistan (5 vs. 15 species). Among the non-endemics, maximum threatened species are from India (44 species), followed by Nepal (19 species), Pakistan (16 species), and Sri Lanka (10 species). Most endemic data deficient species occur in India (8 species) followed by two species each in Nepal and Pakistan and one species in Sri Lanka, Data deficient non-endemic species were maximum in India (25 species) followed by Sri Lanka (14 species), Pakistan (13 species), and Nepal (7 species).

# Chapter 3

## Checklist of South Asian Mammals

### Arrangement of the Checklist

The checklist includes enumeration of all the living and recently extinct species known to occur or have occurred in South Asia. Taxonomic arrangement is following Wilson and Reeder (2005) and comments are added at appropriate places where deviations were incorporated following works published after 2005. Necessary taxonomic comments have been provided at order, family, genus, and species levels. Wherever necessary, additional classification levels have been included. The checklist is based on the best of our knowledge on mammalian species diversity as on 31.12.2011. Any omissions are purely unintentional.

Each species entry includes the currently used scientific name followed by the name of the author(s) and the year in which it was described. Following the scientific name the authority including the original citation in which the type description appeared is provided which is followed by the standardized common name which is followed by alternate English name(s) in parenthesis, type locality (site from where the type specimen(s) was collected for describing the species), synonyms and subspecies valid for South Asia, and distribution (subspecies-wise where applicable), with country-wise distribution details. For all practical purposes, this work considers the disputed part of Jammu and Kashmir, referred to as “Disputed Kashmir” here, as part of India. This is followed by comments (taxonomic or otherwise).

### 3.1 Checklist

## Order Proboscidea Illiger, 1811

### Family Elephantidae Gray, 1821

#### Genus *Elephas* Linnaeus, 1758

#### Elephants

The monotypic genus *Elephas* Linnaeus, 1758, one of the two genera of the family Elephantidae Gray, 1821, is restricted to Asia (Corbet and Hill 1992; Shoshani 2005a).

#### 1. *Elephas maximus* Linnaeus, 1758

1758. *Elephas maximus* Linnaeus, Syst. Nat. 10th ed. 1:33

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#### Asian Elephant (Indian Elephant)

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Type locality: Sri Lanka (Ceylon)

Synonyms: *Elephas indicus* G. Cuvier, 1797

*Elephas maximus indicus* G. Cuvier, 1797

*Elephas asiaticus* Blumenbach, 1797

*Elephas indicus bengalensis* Blainville, 1845

*Elephas indicus ceylanicus* Blainville, 1845

*Elephas maximus ceylanicus* Blainville, 1845

*Elephas maximus vilaliya* Deraniyagala, 1940

Subspecies: *Elephas maximus maximus* Linnaeus, 1758

*Elephas maximus indicus* G. Cuvier, 1797

Distribution: *Elephas maximus maximus* Linnaeus, 1758

Endemic to Sri Lanka, Eastern, Central, Northern, North Central, North Western, Sabaragamuwa, Southern and South Eastern Provinces

*Elephas maximus indicus* G. Cuvier, 1797

Bangladesh—Chittagong, Sylhet, and Mymensingh

Bhutan—Central, East, and West Bhutan

India—Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Chhattisgarh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Tamil Nadu, Uttarakhand, and West Bengal

Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal

Comments: Reviewed in detail by Pocock (1943a), Deraniyagala (1950, 1955), Shoshani and Eisenberg (1982), Sukumar (1989), Santiapillai and Jackson (1990), Nozawa and Shotake (1990), and Shoshani (2000). In Bhutan, this taxon occurs along the border of India, namely, Royal Manas National Park, Khaling Wild life Sanctuary, Namgyal Wangchuk Wildlife Sanctuary, Phipsoo Wildlife Sanctuary, Dungsom Reserve Forest Area, and Mochu Reserve Forest Area. In India, four populations of *Elephas maximus indicus* G. Cuvier, 1797 occur, namely, the central (in the forests of Chhattisgarh, Jharkhand, Orissa, and southern parts of West Bengal), northeastern (in the forests of Northern West Bengal, Assam, Arunachal Pradesh, Nagaland, Manipur, Tripura, and Meghalaya), northwestern (in the terai forest regions of Uttarakhand along the lower Himalayas) and the southern (in the forests of Western Ghats and Eastern Ghats of Andhra Pradesh, Kerala, Tamil Nadu, and Karnataka). In Nepal, this taxon occurs in protected areas along the border of India, namely, Parsa Wildlife Reserve, Royal Bardia National Park, Royal Chitwan National Park, and Royal Shuklaphanta Wildlife Reserve

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## Order Sirenia Illiger, 1811

Represented by a monotypic genus under family Dugongidae Gray, 1821 in South Asia (Corbet and Hill 1992; Shoshani 2005b).

### Family Dugongidae Gray, 1821

#### Subfamily Dugonginae Gray, 1821

#### Genus *Dugong* Lacepede, 1799

#### Dugong/Sea Cow

### 2. *Dugong dugon* (Müller, 1776)

1776. *Trichecus* (sic) *dugon* Müller, Linne's Vollstand. Natursyst. Suppl., p. 21

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#### Dugong (Sea Cow)

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Type locality:	Cape of Good Hope to the Philippines
Synonyms:	<i>Trichecus</i> (sic) <i>dugon</i> Müller, 1776 <i>Trichecus dugong</i> Erxleben, 1777 <i>Dugong indicus</i> Lacépède, 1799
Subspecies:	None
Distribution:	<i>Dugong dugon</i> (Müller, 1776) Arabian Sea, Bay of Bengal India—Off the coast of Andaman Islands, Gujarat (in Gulf of Kutch), Kerala, and Tamil Nadu Maldives—Indian Ocean Pakistan—Off the Coast of Sindh (near Karachi) Sri Lanka—Gulf of Mannar
Comments:	Reviewed by Husar (1978) and Nishiwaki and Marsh (1985). Recently recorded from Kolpitiya and Puttalam off northwestern coast of Sri Lanka (Karunarathna et al. 2011)

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## Order Scandentia Wagner, 1855

Forms belonging to this order were earlier placed under order Insectivora (Ellerman and Morrison-Scott 1951; Campbell 1974). Butler (1972, 1980), Dene et al. (1978), and McKenna and Bell (1997) treated scandents at ordinal level.

## Family Tupaiidae Gray, 1825

### Tree Shrews

Lyon (1913), Campbell (1966, 1974), Elliot (1971), Butler (1972), Dene et al. (1978), and Luckett (1980) reviewed this family. Earlier the family was classified under order Primates (Simpson 1945; Sorenson 1970), later under order Insectivora (Ellerman and Morrison-Scott 1951; Campbell 1974). Butler (1972, 1980), Goodman (1975), Hershkovitz (1977), Dene et al. (1978), Petter and Petter-Rousseaux (1979), Luckett (1980), Yates (1984), Napier (1985), Corbet and Hill (1991, 1992), Novacek (1992), McKenna and Bell (1997), Nowak (1999), Schmitz et al. (2000), and Helgen (2005) recognize it under order Scandentia Wagner, 1855. No subfamilies are recognized (Helgen 2005). It is represented by three species in two genera, namely *Anathana* Lyon, 1913 and *Tupaia* Raffles, 1821, in South Asia.

### Genus *Anathana* Lyon, 1913

#### Indian Tree Shrew

Earlier included under subfamily Tupaiinae Gray, 1825 (Ellerman and Morrison-Scott 1951), this monotypic genus is restricted in distribution to southern India (Srinivasulu and Srinivasulu 2004).

#### 3. *Anathana ellioti* (Waterhouse, 1850)

1850. *Tupaia ellioti* Waterhouse, Proc. Zool. Soc. London, 1849:107, pl. Mamm. 13 (1850)

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#### Madras Treeshrew

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Type locality:	Hills between Cuddapah and Nellore (Velikonda Range), Andhra Pradesh, India
Synonyms:	<i>Tupaia ellioti</i> Waterhouse, 1850 <i>Anathana wroughtoni</i> Lyon, 1913 <i>Anathana ellioti wroughtoni</i> Lyon, 1913 <i>Anathana pallida</i> Lyon, 1913 <i>Anathana ellioti pallida</i> Lyon, 1913
Subspecies:	None
Distribution:	Endemic to India <i>Anathana ellioti</i> (Waterhouse, 1850) Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, and West Bengal
Comments:	Ellerman and Morrison-Scott (1951) treated the taxa <i>wroughtoni</i> Lyon, 1913 and <i>pallida</i> Lyon, 1913 as subspecies of <i>Anathana ellioti</i> (Waterhouse, 1850). Corbet and Hill (1992) considered them indistinct from the nominate form. Distribution was reviewed by Chorazyna and Kurup (1975) and Roonwal and Mohnot (1977)

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## Genus *Tupaia* Raffles, 1821

### Tree Shrews

This genus has been reviewed by Lyon (1913). Restricted in distribution to South and South East Asia.

#### 4. *Tupaia belangeri* (Wagner, 1841)

1841. *Cladobates belangeri* Wagner, Schreber's Die Säugethiere, Suppl., 2:42

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#### Northern Treeshrew (Common Treeshrew)

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Type locality:	Siriam, near Rangoon, Pegu, Myanmar
Synonyms:	<i>Tupaia glis assamensis</i> Wroughton, 1921 <i>Tupaia belangeri assamensis</i> Wroughton, 1921 <i>Tupaia glis verusurae</i> Thomas, 1922 <i>Tupaia belangeri verusurae</i> Thomas, 1922 <i>Tupaia glis lepcha</i> Thomas, 1922 <i>Tupaia belangeri lepcha</i> Thomas, 1922
Subspecies:	None
Distribution:	<i>Tupaia belangeri</i> (Wagner, 1841) Bangladesh—Chittagong, Mymensingh, and Sylhet Bhutan—Central, East, and West Bhutan India—Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Tripura, Sikkim, and Northern West Bengal Nepal—Eastern Nepal
Comments:	Ellerman and Morrison-Scott (1951) listed this taxon under <i>Tupaia glis</i> Diard, 1826. Both the taxa differ in morphological, cranio-dental, and chromosomal aspects (Lyon 1913; Arrighi et al. 1969; Elliot et al. 1969; Agrawal 1975; Lekagul and McNeely 1977; Wang 1987; Toder et al. 1992; Hirai et al. 2002; Helgen 2005)

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#### 5. *Tupaia nicobarica* (Zelevor, 1869)

1869. *Cladobates nicobaricus* Zelevor, Reise Oesterr. Fregatte Novara Zool. 1 (Wirbelthiere), I (Saugth.):17, pl. I, figs. 1, 2, 3 and pl. II

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#### Nicobar Treeshrew

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Type locality:	Great Nicobar Island, Nicobar Isles, Andaman and Nicobar Islands, India
Synonyms:	<i>Cladobates nicobaricus</i> Zelevor, 1869
Subspecies:	<i>Tupaia nicobarica nicobarica</i> (Zelevor, 1869) <i>Tupaia nicobarica surda</i> Miller, 1902
Distribution:	Endemic to India <i>Tupaia nicobarica nicobarica</i> (Zelevor, 1869) Known only from the Great Nicobar Island, Andaman and Nicobar Islands <i>Tupaia nicobarica surda</i> Miller, 1902 Known only from the Little Nicobar Island, Andaman and Nicobar Islands
Comments:	None. See Oommen and Shanker (2008)

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## Order Primates Linnaeus, 1758

McKenna and Bell (1997) proposed order Euprimates including suborders Primates Linnaeus, 1758 and Dermoptera Illiger, 1811. Groves (2001) treated Primates Linnaeus, 1758 at ordinal level and considered Strepsirrhini E. Geoffroy Saint-Hilaire, 1812 and Haplorrhini Pocock, 1918 as suborders. See Perelman et al. (2011) for molecular level phylogenetic relationships among the living primates.

### Suborder Strepsirrhini E. Geoffroy Saint-Hilaire, 1812

Includes a single infraorder Lorisiformes Gregory, 1915 for South Asia (Groves 2001, 2005).

#### Family Lorisidae Gray, 1821

##### Lorises

Originally family Loridae Gray, 1821 (Jenkins 1987), the family name Lorisidae Gray, 1821 is retained following Opinion 1995 of the International Commission of Zoological Nomenclature (International Commission on Zoological Nomenclature 2002). Includes two closely related genera *Loris* E. Geoffroy, 1796 and *Nycticebus* E. Geoffroy, 1812 (Rumpler et al. 1987; Groves 1989).

#### Genus *Loris* E. Geoffroy, 1796

##### Slender Loris

The taxon *Loris lydekkerianus* Cabrera, 1908 was treated as a synonym of *Loris tardigradus* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992). Groves (2001), Molur et al. (2003), and Groves (2005) treat them distinct.

#### 6. *Loris tardigradus* (Linnaeus, 1758)

1758. *Lemur tardigradus* Linnaeus, Syst. Nat. 10th ed., 1:29

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##### Red Slender Loris

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Type locality:	Sri Lanka
Synonyms:	<i>Lemur tardigradus</i> Linnaeus, 1758 <i>Stenops tardigradus</i> (Linnaeus, 1758) <i>Loris gracilis</i> E. Geoffroy, 1796 <i>Lemur ceylonicus</i> Fischer, 1804 <i>Loris ceylonicus</i> (Fischer, 1804) <i>Arachnocebus lori</i> Lesson, 1840 <i>Bradylemur tardigradus</i> Lesson, 1840 <i>Nycticebus gracilis</i> (E. Geoffroy, 1796) <i>Tardigradus tardigradus</i> (Boddaert, 1841) <i>Loris gracilis zeylanicus</i> Lydekker, 1905 <i>Loris lydekkerianus nycticeboides</i> Hill, 1942

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**Red Slender Loris**

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- Subspecies: *Loris tardigradus tardigradus* (Linnaeus, 1758)  
*Loris tardigradus nycticeboides* Hill, 1942
- Distribution: Endemic to Sri Lanka  
*Loris tardigradus tardigradus* (Linnaeus, 1758)  
 Central, North Western, Sabaragamuwa, Southern and Western Provinces  
*Loris tardigradus nycticeboides* Hill, 1942  
 Central and Uva Provinces
- Comments: Groves (2001, 2005) treated *nycticeboides* Hill, 1942 as subspecies of *Loris lydekkerianus* Cabrera, 1908, while Nekaris et al. (2006) and Molur et al. (2008) treat it as a subspecies *Loristardigradus* (Linnaeus, 1758)
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**7. *Loris lydekkerianus* Cabrera, 1908**1908. *Loris lydekkerianus* Cabrera, Bol. Soc. Esp. Hist. Nat., Madrid, 139 pp

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**Gray Slender Loris**

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- Type locality: Madras, India
- Synonyms: *Loris tardigradus lydekkerianus* Cabrera, 1908  
*Loris malabaricus* Wroughton, 1917  
*Loris tardigradus malabaricus* Wroughton, 1917  
*Loris tardigradus grandis* Hill and Phillips, 1932  
*Loris tardigradus nordicus* Hill, 1933
- Subspecies: *Loris lydekkerianus lydekkerianus* Cabrera, 1908  
*Loris lydekkerianus malabaricus* Wroughton, 1917  
*Loris lydekkerianus grandis* Hill and Phillips, 1932  
*Loris lydekkerianus nordicus* Hill, 1933
- Distribution: Endemic to South Asia  
*Loris lydekkerianus lydekkerianus* Cabrera, 1908  
 Endemic to India, Andhra Pradesh, Karnataka, and Tamil Nadu  
*Loris lydekkerianus malabaricus* Wroughton, 1917  
 Endemic to India, Western Ghats in Karnataka, Kerala, and Tamil Nadu  
*Loris lydekkerianus grandis* Hill and Phillips, 1932  
 Endemic to Sri Lanka, Central, North Central, and Uva Provinces  
*Loris lydekkerianus nordicus* Hill, 1933  
 Endemic to Sri Lanka, Central, Eastern, Northern, North Central, Southern, and Uva Provinces
- Comments: Groves (2005) does not include *nordicus* Hill, 1933 as valid subspecies, while Groves (2001), Molur et al. (2003), Nekaris and Jayawardene (2002, 2003, 2004), and Perera (2008) treat it as a distinct subspecies
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## Genus *Nycticebus* E. Geoffroy, 1812

### Slow Loris

Represented by one species in South Asia.

#### 8. *Nycticebus bengalensis* (Lacépède, 1800)

1800. *Loris bengalensis* Lacépède, Tabl. Mamm. Olseaux, p. 68

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#### Bengal Slow Loris

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Type locality:	Bengal, India
Synonyms:	<i>Loris bengalensis</i> Lacépède, 1800 <i>Nycticebus coucang bengalensis</i> (Lacépède, 1800)
Subspecies:	None
Distribution:	<i>Nycticebus bengalensis</i> (Lacépède, 1800) Bangladesh—Chittagong and Sylhet Bhutan—Central and East Bhutan India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura
Comments:	Earlier included under <i>Nycticebus coucang</i> (Boddaert, 1785) (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992), this taxon was later upgraded to species level (Groves 2001; Molur et al. 2003)

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### Suborder Haplorrhini Pocock, 1918

Includes a single infraorder Simiiformes Haeckel, 1866 for South Asia (Groves 2005) that was earlier considered as Anthroproidea (Ellerman and Morrison-Scott 1951) and now considered distinct following Hoffstetter (1982). This infraorder, includes superfamily Cercopithecoidea Gray, 1821 (corresponding to Catarrhini E. Geoffroy Saint-Hilaire, 1812, [Groves2005]), is represented by two families Cercopithecidae Gray, 1821 and Hylobatidae Gray, 1871 in South Asia.

### Family Cercopithecidae Gray, 1821

#### Old World Monkeys

This family is represented by three genera—*Macaca* Lacepede, 1799, *Semnopithecus* Desmarest, 1822, and *Trachypithecus* Reichenbach, 1862—in two subfamilies, namely, subfamily Cercopithecinae Gray, 1821 and subfamily Colobinae Jerdon, 1867 (Ellerman and Morrison-Scott 1951; Strasser and Delson 1987; Groves 1989, 1993a, 2001; Corbet and Hill 1992) in South Asia.

#### Subfamily Cercopithecinae Gray, 1821

#### Genus *Macaca* Lacepede, 1799

#### Macaques

The genus *Macaca* Lacepede, 1799 is divided into four species groups—*M. nemes-trina*-species group, *M. fascicularis*-species group, *M. mulatta*-species group, and *M. sinica*-species group—in South Asia (Groves 2001, 2005).

**9. *Macaca silenus* (Linnaeus, 1758)**1758. *Simia silenus* Linnaeus, Syst. Nat. 10th ed., 1:26

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**Lion-tailed Macaque**

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Type locality:	Western Ghats, India (Hill 1974)
Synonyms:	<i>Simia silenus</i> Linnaeus, 1758 <i>Cercopithecus veter</i> Erxleben, 1777 <i>Cercopithecus vetulus</i> Erxleben, 1777 <i>Simia (Cercopithecus) veter albibarbatus</i> Kerr, 1792 <i>Simia (Cercopithecus) silenus albibarbatus</i> Kerr, 1792 <i>Simia ferox</i> Shaw, 1793
Subspecies:	None
Distribution:	Endemic to India <i>Macaca silenus</i> (Linnaeus, 1758) Karnataka, Kerala, and Tamil Nadu
Comments:	Belongs to <i>nemestrina</i> -species group

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**10. *Macaca sinica* (Linnaeus, 1771)**1771. *Simia sinica* Linnaeus, Mantissa Plantarum 2, Appendix:521

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**Toque Macaque**

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Type locality:	Probably Sri Lanka (Fooden 1979)
Synonyms:	<i>Simia sinica</i> Linnaeus, 1771 <i>Cynamolgus (Zati) audeberti</i> Reichenbach, 1862 <i>Macaca pileatus</i> Blyth, 1863 <i>Macaca sinica inaura</i> Pocock, 1931 <i>Macaca (Zati) sinica opisthomelas</i> Hill, 1942 <i>Macaca longicaudata</i> Deraniyagala, 1965
Subspecies:	<i>Macaca sinica sinica</i> (Linnaeus, 1771) <i>Macaca sinica aurifrons</i> Pocock, 1931 <i>Macaca sinica opisthomelas</i> Hill, 1942
Distribution:	Endemic to Sri Lanka <i>Macaca sinica sinica</i> (Linnaeus, 1771) Central, Eastern, North Central, North Western, Northern, Sabaragamuwa, Southern, and Uva Provinces <i>Macaca sinica aurifrons</i> Pocock, 1931 Central, Sabaragamuwa, Southern, Uva, and Western Provinces <i>Macaca sinica opisthomelas</i> Hill, 1942 Central Province
Comments:	Belongs to <i>sinica</i> -species group. Groves (2005) validates only <i>aurifrons</i> Pocock, 1931 as subspecies. Groves (2001) and Molur et al. (2003, 2008) recognize three subspecies based on morphological variations

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**11. *Macaca mulatta* (Zimmermann, 1780)**1780. *Cercopithecus mulatta* Zimmermann, Geogr. Gesch. Mensch. Vierf. Thiere, 2:195

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**Rhesus Macaque (Rhesus Monkey)**

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- Type locality: Nepal Terai, India
- Synonyms: *Cercopithecus mulatta* Zimmermann, 1780  
*Simia (Cercopithecus) fulvus* Kerr, 1792  
*Simia rhesus* Audebert, 1798  
*Simia erythraea* Shaw, 1800  
*Macaca (Pithex) oinops* Hodgson, 1840  
*Macaca (Pithex) nipalensis* Hodgson, 1840  
*Macacus vestitus* Milne-Edwards, 1892  
*Macacus rhesus villosus* True, 1894  
*Macaca mulatta mcMahonii* Pocock, 1932
- Subspecies: *Macaca mulatta mulatta* (Zimmermann, 1780)
- Distribution: *Macaca mulatta mulatta* (Zimmermann, 1780)  
 Afghanistan—Nuristan, Laghman, and Paktiya Provinces  
 Bangladesh—Chittagong, Dhaka, and Sylhet  
 Bhutan—Central, East, and West Bhutan  
 India—Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir (in Disputed Kashmir), Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Eastern, Mid-Western, Far-Western, and Western Nepal  
 Pakistan—Khyber Pakhtunkhwa and Punjab
- Comments: Belongs to *mulatta*-species group. Revised by Fooden (2000). For Afghanistan distribution, refer to Habibi (1977, 2003) and Petocz and Larsson (1977)
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**12. *Macaca radiata* (E. Geoffroy, 1812)**1812. *Cercocebus radiatus* E. Geoffroy, Ann. Mus. Hist. Nat. Paris, 19:98

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**Bonnet Macaque**

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- Type locality: India (Hill 1974)
- Synonyms: *Cercocebus radiatus* E. Geoffroy, 1812
- Subspecies: *Macaca radiata radiata* (E. Geoffroy, 1912)  
*Macaca radiata diluta* Pocock, 1931
- Distribution: Endemic to India  
*Macaca radiata radiata* (E. Geoffroy, 1912)  
 Endemic to India, Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Maharashtra, and Tamil Nadu  
*Macaca radiata diluta* Pocock, 1931  
 Endemic to India, Kerala, Puducherry, and Tamil Nadu
- Comments: Belongs to *sinica*-species group. Although Groves (2005) does not recognize any valid subspecies for the region, Molur et al. (2003, 2008) treat *M. r. diluta* Pocock, 1931 distinct owing to morphological and behavioural differences. Revised by Fooden (1981)
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**13. *Macaca fascicularis* (Raffles, 1821)**1821. *Simia fascicularis* Raffles, Trans. Linn. Soc. London, 13:246

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**Crab-eating Macaque (Long-tailed Macaque)**

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Type locality:	Sumatra, Indonesia
Synonyms:	<i>Simia fascicularis</i> Raffles, 1821 <i>Macacus aureus</i> Geoffroy, 1831 <i>Macaca umbrosus</i> Miller, 1902 <i>Pithecus fascicularis</i> Wroughton, 1915
Subspecies:	<i>Macaca fascicularis aureus</i> (I. Geoffroy Saint-Hilaire, 1831) <i>Macaca fascicularis umbrosus</i> (Miller, 1902)
Distribution:	<i>Macaca fascicularis aureus</i> (I. Geoffroy Saint-Hilaire, 1831) Bangladesh—Chittagong <i>Macaca fascicularis umbrosus</i> (Miller, 1902) Endemic to India, Great Nicobar, Little Nicobar, and Katchall of Andaman and Nicobar Islands
Comments:	Belongs to <i>fascicularis</i> -species group. Earlier included under <i>Macaca irus</i> (F. Cuvier, 1818) (Ellerman and Morrison-Scott 1951). Revised by Fooden (1995) and Groves (2001)

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**14. *Macaca arctoides* (I. Geoffroy, 1831)**1831. *Macacus arctoides* I. Geoffroy, In Belanger (ed.) Voy. Indes Orient., Mamm., 3(Zool.):61

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**Stump-tailed Macaque (Bear Macaque, Stumptail Macaque)**

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Type locality:	“Cochin-China” (=Indochina)
Synonyms:	<i>Macaca speciosa</i> F. Cuvier, 1825 <i>Macacus arctoides</i> I. Geoffroy, 1831 <i>Macacus ursinus</i> Gervais, 1854 <i>Papio melanotus</i> Ogilby, 1839 <i>Macaca speciosa melanota</i> Ogilby, 1839 <i>Macaca speciosa arctoides</i> I. Geoffroy, 1831
Subspecies:	None
Distribution:	<i>Macaca arctoides</i> (I. Geoffroy, 1831) Bangladesh—Probably extinct. Earlier occurred in Eastern parts of Bangladesh India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura
Comments:	Belongs to the <i>fascicularis</i> -species group. Earlier included under <i>Macaca speciosa</i> (F. Cuvier, 1825) (Ellerman and Morrison-Scott 1951), later upgraded to species level as its genitalia and other characters differed from other species of macaques (Corbet and Hill 1992). Reviewed in detail by Fooden et al. (1985) and Fooden (1990)

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**15. *Macaca assamensis* (Mc'Clelland, 1839)**1840. *Macacus assamensis* Mc'Clelland, In Horsfield (ed.) Proc. Zool. Soc. London, 1839:148 (1840)

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**Assam Macaque (Assamese Macaque)**

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Type locality:	Assam, India
Synonyms:	<i>Macacus assamensis</i> Mc'Clelland, 1840 <i>Macacus (Pithecus) pelops</i> Hodgson, 1840 <i>Macaca problematicus</i> Gray, 1870
Subspecies:	<i>Macaca assamensis assamensis</i> (Mc'Clelland, 1839) <i>Macaca assamensis pelops</i> (Hodgson, 1840)
Distribution:	<i>Macaca assamensis assamensis</i> (Mc'Clelland, 1839) Bhutan—Central, East, and West Bhuta India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura <i>Macaca assamensis pelops</i> (Hodgson, 1840) Bangladesh—Chittagong, parts of Rangpur and Sylhet Bhutan—Central Bhutan India—Arunachal Pradesh, Assam, Sikkim, and northernmost parts of West Bengal Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal
Comments:	Belongs to the <i>sinica</i> -species group. Reviewed in detail by Fooden (1982). Nepal population of this species warrants separate subspecies level recognition (Molur et al. 2003)

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**16. *Macaca leonina* (Blyth, 1863)**1863. *Macacus leoninus* Blyth, Cat. Mamm. Mus. Asiat. Soc., pp. 7

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**Northern Pig-tailed Macaque (Northern Pigtail Macaque)**

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Type locality:	Northern Arakan, Myanmar
Synonyms:	<i>Macacus leoninus</i> Blyth, 1863 <i>Macacus andamanensis</i> Bartlet, 1869 <i>Macaca nemestrina blythii</i> Pocock, 1931
Subspecies:	None
Distribution:	<i>Macaca leonina</i> (Blyth, 1863) Bangladesh—Chittagong and Sylhet India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura
Comments:	Belongs to <i>nemestrina</i> -species group. Earlier included under <i>Macaca nemestrina</i> (Linnaeus, 1766) (Ellerman and Morrison-Scott 1951), raised to species level by Groves (2001)

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**17. *Macaca munzala* Sinha, Datta, Madusudhan and Mishra, 2005**2005. *Macaca munzala* Sinha, Datta, Madusudhan and Mishra, Intl. Jour. Primatology, 26(4):977–989

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**Arunachal Macaque**

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Type locality: Zemithang (27°42'N, 91°43'E), Tawang District, Arunachal Pradesh at an altitude of 2,180 msl

Synonyms: None

Subspecies: None

Distribution: Endemic to India

*Macaca munzala* Sinha, Datta, Madusudhan and Mishra, 2005

Arunachal Pradesh (in Tawang and West Kameng Districts)

Comments: Belongs to *sinica*-species group. Might also occur in other parts of Arunachal Pradesh and also adjoining Bhutan (Sinha et al. 2005). Mishra and Sinha (2008) provide a detailed description of the species, and Biswas et al. (2011) discussed its taxonomic status and its relationship to *M. assamensis*

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**Subfamily Colobinae Jerdon, 1867**

All forms were earlier included in genus *Presbytis* Eschscholt, 1821 with *Trachypithecus* Reichenbach, 1862, *Kasi* Reichenbach, 1862, and *Semnopithecus* Desmarest, 1822 as subgenera (Pocock 1939; Ellerman and Morrison-Scott 1951; Szalay and Delson 1979). Two genera—*Semnopithecus* Desmarest, 1822 and *Trachypithecus* Reichenbach, 1862—are recognized currently (Groves 1989, 2001; Corbet and Hill 1992; Molur et al. 2003, 2008; Brandon-Jones et al. 2004; Karanth 2010).

**Genus *Semnopithecus* Desmarest, 1822****Langurs**

Langurs in South Asia were placed in single species—*entellus* Dufresne, 1797 by earlier workers. See Brandon-Jones (2004) for taxonomic review of this genus. Groves (2001, 2005) recognize seven species, while Molur et al. (2008) recognize a total of nine species. Also see Nag et al. (2011).

**18. *Semnopithecus entellus* (Dufresne, 1797)**1797. *Simia entellus* Dufresne, Bull. Sci. Soc. Philom. Paris, 1, 7:49

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**Bengal Hanuman Langur (Northern Plains Gray Langur)**

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Type locality:	Bengal, India (restricted to Shibpur, near Kolkata, West Bengal, India)
Synonyms:	<i>Simia entellus</i> Dufresne, 1797 <i>Presbytis entellus</i> (Dufresne, 1797)
Subspecies:	None
Distribution:	Endemic to South Asia <i>Semnopithecus entellus</i> (Dufresne, 1797) Bangladesh—Khulna and Patharia India—Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, and West Bengal
Comments:	This taxon earlier included many taxa presently recognized as distinct species (Brandon-Jones 2004; Groves 2005; Molur et al. 2008)

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**19. *Semnopithecus schistaceus* Hodgson, 1840**1840. *Semnopithecus schistaceus* Hodgson, J. Asiat. Soc. Bengal, 10:1212

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**Central Himalayan Langur (Nepal Gray Langur)**

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Type locality:	Nepal
Synonyms:	<i>Semnopithecus nipalensis</i> Hodgson, 1840 <i>Presbytis entellus schistaceus</i> (Hodgson, 1840) <i>Presbytis lania</i> Elliot, 1909 <i>Presbytis entellus lania</i> Elliot, 1909 <i>Semnopithecus entellus lania</i> (Elliot, 1909) <i>Pithecus entellus achilles</i> Pocock, 1928 <i>Presbytis entellus achilles</i> (Pocock, 1928) <i>Semnopithecus entellus achilles</i> (Pocock, 1928)
Subspecies:	None
Distribution:	<i>Semnopithecus schistaceus</i> Hodgson, 1840 Bhutan—West Bhutan India—Bihar, Himachal Pradesh, Jammu and Kashmir, Sikkim, Uttarakhand, and West Bengal Nepal—Central, Eastern, and Western Nepal Pakistan—Khyber Pakhtunkhwa and Punjab (parts of)
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797, now a distinct species (Groves 2005; Molur et al. 2008)

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**20. *Semnopithecus hypoleucos* Blyth, 1841**1841. *Semnopithecus hypoleucos* Blyth, J. Asiat. Soc. Bengal, 10:839

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**Dark-legged Malabar Langur (Black-footed Gray Langur)**

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Type locality:	Travancore, India
Synonyms:	<i>Presbytis entellus hypoleucos</i> (Blyth, 1841) <i>Semnopithecus entellus hypoleucos</i> (Blyth, 1841) <i>Pithecus entellus aeneas</i> Pocock, 1928 <i>Presbytis entellus aeneas</i> (Pocock, 1928) <i>Semnopithecus entellus aeneas</i> (Blyth, 1841)
Subspecies:	None
Distribution:	Endemic to India <i>Semnopithecus hypoleucos</i> Blyth, 1841 Goa, Karnataka, and Kerala
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797, now a distinct species (Groves 2005; Molur et al. 2008)

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**21. *Semnopithecus dussumieri* I. Geoffroy, 1843**1843. *Semnopithecus dussumieri* I. Geoffroy, C. R. Acad. Sci. Paris, 15:719

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**Western Hanuman Langur (Southern Plains Gray Langur)**

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Type locality:	Malabar Coast, India (restricted to Kannur 11°59'N, 75°32'E, Kerala, India by Brandon-Jones 2004)
Synonyms:	<i>Presbytis entellus dussumieri</i> (I. Geoffroy, 1843) <i>Pithecus entellus achates</i> Pocock, 1928 <i>Presbytis entellus achates</i> (Pocock, 1928) <i>Semnopithecus entellus achates</i> (Pocock, 1928) <i>Pithecus entellus elissa</i> Pocock, 1928 <i>Presbytis entellus elissa</i> (Pocock, 1928) <i>Semnopithecus entellus elissa</i> (Pocock, 1928) <i>Pithecus entellus iulus</i> Pocock, 1928 <i>Presbytis entellus iulus</i> (Pocock, 1928) <i>Semnopithecus entellus iulus</i> (Pocock, 1928) <i>Pithecus entellus priamellus</i> Pocock, 1928 <i>Presbytis entellus priamellus</i> (Pocock, 1928) <i>Semnopithecus entellus priamellus</i> (Pocock, 1928)
Subspecies:	None
Distribution:	Endemic to India <i>Semnopithecus dussumieri</i> I. Geoffroy, 1843 Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, and Uttar Pradesh
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797, now a distinct species (Groves 2005). Brandon-Jones (2004) advocated usage of <i>achates</i> Pocock, 1928 for this taxon, opining that <i>dussumieri</i> I. Geoffroy, 1843 happens to be based on hybrid individuals, which is considered a junior synonym here following Groves (2001, 2005). Molur et al. (2008) recognize <i>achates</i> Pocock, 1928

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**22. *Semnopithecus anchises* (Blyth, 1844)**1844. *Presbytis anchises* Blyth, J. Asiat. Soc. Bengal, 13:470

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**Deccan Hanuman Langur**

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Type locality:	Deccan, India (provisionally restricted to Raichur 16° 15'N, 77° 24'E, Karnataka, India by Brandon-Jones 2004)
Synonyms:	<i>Presbytis anchises</i> Blyth, 1844 <i>Presbytis entellus anchises</i> Blyth, 1844 <i>Semnopithecus entellus anchises</i> (Blyth, 1844)
Subspecies:	None
Distribution:	Endemic to India <i>Semnopithecus anchises</i> (Blyth, 1844) Andhra Pradesh, Karnataka, Madhya Pradesh, and Maharashtra
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797 (Brandon-Jones 2004), currently accepted as distinct species (Molur et al. 2008). Groves (2005) synonymized it with <i>Semnopithecus dussumieri</i> I. Geoffroy, 1843

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**23. *Semnopithecus priam* Blyth, 1844**1844. *Semnopithecus priam* Blyth, *Ann. Mag. Nat. Hist.* 13:312

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**Coromandel Gray Langur**

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Type locality:	Coromandel Coast, India
Synonyms:	<i>Semnopithecus pallipes</i> Blyth, 1844 <i>Pithecus entellus pallipes</i> Pocock, 1928 <i>Semnopithecus entellus pallipes</i> (Pocock, 1928) <i>Semnopithecus priamus</i> Blyth, 1847 <i>Presbytis priamus</i> (Blyth 1847) <i>Presbytis entellus priam</i> (Blyth, 1844) <i>Semnopithecus entellus priam</i> Blyth, 1844
Subspecies:	None
Distribution:	Endemic to India <i>Semnopithecus priam</i> Blyth, 1844 Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu
Comments:	Molur et al. (2008) recognized this taxon as a distinct species

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**24. *Semnopithecus thersites* (Blyth, 1847)**1847. *Presbytis thersites* Blyth, Jour. Asiat. Soc. Bengal, 16:1271

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**Tufted Gray Langur**

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Type locality:	Trincomalee, Sri Lanka
Synonyms:	<i>Presbytis thersites</i> Blyth, 1847 <i>Presbytis entellus thersites</i> Blyth, 1847 <i>Semnopithecus entellus thersites</i> (Blyth, 1847)
Subspecies:	None

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**Tufted Gray Langur**

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Distribution:	Endemic to South Asia <i>Semnopithecus thersites</i> (Blyth, 1847) India—Kerala and Tamil Nadu Sri Lanka—Central, Eastern, North Central, North Western, Northern, Sabaragamuwa, and Uva Provinces
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797, now a distinct species (Molur et al. 2008). Groves (2005) synonymized <i>thersites</i> Blyth, 1847 with <i>priam</i> Blyth, 1844

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**25. *Semnopithecus ajax* (Pocock, 1928)**1928. *Pithecus entellus ajax* Pocock, Jour. Bombay Nat. Hist. Soc. 2:480, pl. 2, fig. i

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**Himalayan Gray Langur (Kashmir Gray Langur)**

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Type locality:	Deolah, 1,800 m, Chamba, (now in Himachal Pradesh), India
Synonyms:	<i>Pithecus entellus ajax</i> Pocock, 1928 <i>Presbytis entellus ajax</i> (Pocock, 1928) <i>Semnopithecus entellus ajax</i> (Pocock, 1928)
Subspecies:	None
Distribution:	Endemic to India <i>Semnopithecus ajax</i> (Pocock, 1928) India—Himachal Pradesh, Jammu and Kashmir (including the Disputed Kashmir) and Uttarakhand
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797, now a distinct species (Brandon-Jones 1984, 1995, 2004; Groves 2005; Molur et al. 2008). Groves (2005) gives its range from Dehradun to Disputed Kashmir. Distribution needs verification. May possibly also occur in Nepal

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**26. *Semnopithecus hector* (Pocock, 1928)**1928. *Pithecus entellus hector* Pocock, Jour. Bombay Nat. Hist. Soc., 32:481

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**Lesser Hill Langur (Terai Gray Langur)**

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Type locality:	Sitabani, 600 m, Ramnagar, Kumaun, Uttarakhand, India
Synonyms:	<i>Pithecus entellus hector</i> Pocock, 1928 <i>Presbytis entellus hector</i> (Pocock, 1928) <i>Semnopithecus entellus hector</i> (Pocock, 1928)
Subspecies:	None
Distribution:	Endemic to South Asia <i>Semnopithecus hector</i> (Pocock, 1928) Bhutan—Central and West Bhutan India—Bihar, Uttarakhand, Uttar Pradesh, and West Bengal Nepal—Central, Eastern, Mid-Western, and Western Nepal
Comments:	Earlier treated as subspecies of <i>S. entellus</i> Dufresne, 1797, now a distinct species (Groves 2005; Molur et al. 2008)

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## Genus *Trachypithecus* Reichenbach, 1862

### Leaf Monkeys

Earlier included under the genus *Presbytis* Eschscholtz, 1821 and *Semnopithecus* Desmarest, 1822. The genus *Trachypithecus* Reichenbach, 1862 was separated by Hooljer (1962) and Groves (1989, 2001c). See Brandon-Jones (2004) for taxonomic review of this genus. It includes five species in three species groups for the region namely, *vetulus* species group, *obscurus* species group, and *pileatus* species group (Groves 2005).

#### **27. *Trachypithecus vetulus* (Erxleben, 1777)**

1777. *Cercopithecus vetulus* Erxleben, Syst. Regim. Anim., pp. 24

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#### Purple-faced Langur (Purple-faced Leaf Monkey)

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Type locality:	Sri Lanka
Synonyms:	<i>Cercopithecus vetulus</i> Erxleben, 1777 <i>Presbytis senex vetulus</i> (Erxleben, 1777) <i>Pithecus senex vetulus</i> (Erxleben, 1777) <i>Pithecus vetulus vetulus</i> (Erxleben, 1777) <i>Kasi vetulus vetulus</i> (Erxleben, 1777) <i>Cercopithecus senex</i> Erxleben, 1777 <i>Presbytis senex</i> (Erxleben, 1777) <i>Semnopithecus senex</i> (Erxleben, 1777) <i>Pithecus senex</i> (Erxleben, 1777) <i>Cercopithecus kephalopterus</i> Zimmermann, 1780 (“ <i>cephalopterus</i> ” of many subsequent authors) <i>Semnopithecus nestor</i> Bennett, 1833 <i>Presbytis senex nestor</i> Bennett, 1833 <i>Presbytis cephalopterus</i> var. <i>monticola</i> Kelaart, 1850 <i>Presbytis senex monticola</i> Kelaart, 1850 <i>Presbytis ursinus</i> Blyth, 1851 <i>Presbytis albinus</i> Kelaart, 1852 <i>Pithecus vetulus phillipsi</i> Hinton, 1923 <i>Pithecus philbricki</i> Phillips, 1927 <i>Pithecus vetulus philbricki</i> Phillips, 1927 <i>Pithecus senex philbricki</i> Phillips, 1927 <i>Kasi vetulus philbricki</i> (Phillips, 1927)
Subspecies:	<i>Trachypithecus vetulus vetulus</i> (Erxleben, 1777) <i>Trachypithecus vetulus nestor</i> (Bennett, 1833) <i>Trachypithecus vetulus monticola</i> (Kelaart, 1850) <i>Trachypithecus vetulus philbricki</i> (Phillips, 1927)

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**Purple-faced Langur (Purple-faced Leaf Monkey)**

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Distribution:	Endemic to Sri Lanka <i>Trachypithecus vetulus vetulus</i> (Erleben, 1777) Sabaragamuwa, Southern, and Western Provinces <i>Trachypithecus vetulus nestor</i> (Bennett, 1833) Central, North Western, Sabaragamuwa, and Western Provinces <i>Trachypithecus vetulus monticola</i> (Kelaart, 1850) Central, Sabaragamuwa, and Uva Provinces <i>Trachypithecus vetulus philbricki</i> (Phillips, 1927) Central, Eastern, North Central, Northern, and Uva Provinces
Comments:	Belongs to <i>vetulus</i> species group. See Pocock (1939), Hill (1934), and Napier (1985) for nomenclature history

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**28. *Trachypithecus johnii* (Fischer, 1829)**1829. *Cercopithecus johnii* Fischer, Synopsis Mamm., pp. 25

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**Nilgiri Langur (Nilgiri Black Langur)**

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Type locality:	Tellicherry, Southern India, India
Synonyms:	<i>Cercopithecus johnii</i> Fischer, 1829 <i>Presbytis johnii</i> (Fischer, 1829) <i>Semnopithecus (Trachypithecus) johnii</i> (Fischer, 1829) <i>Semnopithecus cucullatus</i> I. Geoffroy, 1834 <i>Semnopithecus jubatus</i> Wagner, 1839 <i>Semnopithecus cephalopterus</i> Blyth, 1844 <i>Pithecus vetulus johnii</i> Hill, 1934 <i>Kasi johni</i> Hill, 1936 <i>Presbytis (Trachypithecus) johnii</i> Oates, 1979
Subspecies:	None
Distribution:	Endemic to India <i>Trachypithecus johnii</i> (Fischer, 1829) Karnataka, Kerala, and Tamil Nadu
Comments:	Belongs to <i>vetulus</i> species group

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**29. *Trachypithecus pileatus* (Blyth, 1843)**1843. *Semnopithecus pileatus* Blyth, J. Asiat. Soc. Bengal, 12:174

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**Capped Langur (Bonneted Langur)**

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Type locality:	Assam, India
Synonyms:	<i>Semnopithecus pileatus</i> Blyth, 1843 <i>Semnopithecus argentatus</i> Horsfield, 1851 <i>Presbytis brahma</i> Wroughton, 1916 <i>Presbytis durga</i> Wroughton, 1916 <i>Pithecus pileatus saturatus</i> Hinton, 1923 <i>Pithecus pileatus tenebricus</i> Hinton, 1923

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**Capped Langur (Bonneted Langur)**

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- Subspecies: *Trachypithecus pileatus pileatus* (Blyth, 1843)  
*Trachypithecus pileatus brahma* (Wroughton, 1916)  
*Trachypithecus pileatus durga* (Wroughton, 1916)  
*Trachypithecus pileatus tenebricus* (Hinton, 1923)
- Distribution: *Trachypithecus pileatus pileatus* (Blyth, 1843)  
 India—Arunachal Pradesh, Assam, Meghalaya, and Nagaland  
*Trachypithecus pileatus brahma* (Wroughton, 1916)  
 Endemic to India, Arunachal Pradesh  
*Trachypithecus pileatus durga* (Wroughton, 1916)  
 Bangladesh—Chittagong, Dhaka, and Sylhet  
 India—Assam, Mizoram, and Tripura  
*Trachypithecus pileatus tenebricus* (Hinton, 1923)  
 Endemic to South Asia  
 Bhutan—Central and West Bhutan  
 India—Arunachal Pradesh and Assam
- Comments: Belongs to the *pileatus* species group
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**30. *Trachypithecus phayrei* (Blyth, 1847)**1847. *Presbytis phayrei* Blyth, J. Asiat. Soc. Bengal, 16:733

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**Phayre's Leaf-monkey (Phayre's Langur)**

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- Type locality: Arakan, Myanmar
- Synonyms: *Presbytis phayrei* Blyth, 1847  
*Trachypithecus obscurus phayrei* (Blyth, 1847)
- Subspecies: None
- Distribution: *Trachypithecus phayrei* (Blyth, 1847)  
 Bangladesh—Chittagong and Sylhet  
 India—Assam, Mizoram, and Tripura
- Comments: Belongs to *obscurus* species group. The taxon *barbei* (see Blyth 1847a) from Tipperah Hills, is not included in synonymy here due to confusion related to assignment of the nomen to specimens (see Pocock 1939 for details). The range of taxon *obscurus* Reid, 1837 is east of Myanmar; thus, earlier records of this species from South Asia are assigned to *phayrei* Blyth, 1847
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**31. *Trachypithecus geei* (Khajuria, 1956)**1956. *Presbytis geei* Khajuria, Ann. Mag. Nat. Hist. Ser. 12, 9:86

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**Gee's Golden Langur**

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- Type locality: Jamduar Forest Rest House, east bank of river Sankosh, Goal para dist., Assam, India
- Synonyms: *Presbytis geei* Khajuria, 1956  
*Trachypithecus geei bhutanensis* Wangchuck et al., 2003
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**Gee's Golden Langur**

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- Subspecies: *Trachypithecus geei* (Khajuria, 1956)  
 Distribution: Endemic to South Asia  
*Trachypithecus geei* (Khajuria, 1956)  
 Bhutan—Central and Western Bhutan  
 India—Assam  
 Comments: Belongs to *pileatus* species group. For distribution in Bhutan refer to Choudhury (2002) and Wangchuck et al. (2003). Although Wangchuck et al. (2003) have described a new subspecies namely *Trachypithecus geei bhutanensis* Wangchuck et al., 2003, it is presently not recognized as the description does not agree with the ICZN rules
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**Family Hylobatidae Gray, 1871****Gibbons**

Earlier included under Pongidae (Ellerman and Morrison-Scott 1951; Vaughan 1978), but later treated distinct (Delson and Andrews 1975; Thenius 1981).

**Genus *Hoolock* Mootnick and Groves, 2005****Hoolock Gibbon**

Earlier generic name *Bunopithecus* Matthew and Granger, 1923 applied to Hoolock Gibbon is not applicable due to the fact that it is based on a fossil species and the type species *Bunopithecus sericus* Matthew and Granger, 1923 is different than the extant hoolock gibbon. Mootnick and Groves (2005) provided the new generic nomen.

**32. *Hoolock hoolock* (Harlan, 1834)**

1834. *Simia hoolock* Harlan, Trans. Amer. Phil. Soc., 4:52

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**Western Hoolock Gibbon**

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- Type locality: Garo Hills, Assam, India (= Garo Hills, Meghalaya, India)  
 Synonyms: *Simia hoolock* Harlan, 1834  
*Bunopithecus hoolock* (Harlan, 1834)  
*Hylobates fuscus* Winslow Lewis, 1834  
*Hylobates choromandus* Ogilby, 1837  
*Hylobates scyritus* Ogilby, 1840  
 Subspecies: *Hoolock hoolock hoolock* (Harlan, 1834)  
*Hoolock hoolock leuconedys* Groves, 1967  
 Distribution: *Hoolock hoolock hoolock* (Harlan, 1834)  
 Bangladesh—Chittagong and Sylhet  
 India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura  
 Comments: Earlier included *Hoolock leuconedys* (Groves 1967) (Groves 2005)
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**33. *Hoolock leuconedys* (Groves, 1967)**1967. *Hyllobates hoolock leuconedys* Groves, Fol. Primatol., 7:280

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**Eastern Hoolock Gibbon**

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Type locality:	Sumprabum (26°35'N, 97°42'E), N. Burma (= Myanmar)
Synonyms:	<i>Hyllobates hoolock leuconedys</i> Groves, 1967 <i>Bunopithecus hoolock leuconedys</i> (Groves, 1967)
Subspecies:	None
Distribution:	<i>Hoolock leuconedys</i> (Groves, 1967) India—Arunachal Pradesh and Assam
Comments:	It is restricted, so far, to the Dibang valley region of Arunachal Pradesh (Das et al. 2006; Chetry et al. 2008) and adjacent Sadiya forest in Assam (Chetry and Chetry 2010). Earlier recognized as subspecies of <i>H. hoolock</i> (Harlan 1834) (Groves 2005). Mitochondrial evidence suggests <i>H. hoolock</i> and <i>H. leuconedys</i> to be distinct (Thinh et al. 2010)

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**Order Rodentia Bowdich, 1821**

Order Rodentia includes five suborders, of which three—Sciuromorpha Brandt, 1855, Myomorpha Brandt, 1855, and Hystricomorpha Brandt, 1855—are present in South Asia. The suborder Sciuromorpha Brandt, 1855 includes members of the family Sciuridae Fischer, 1817 and family Gliridae Muirhead, 1819 for South Asia. The suborder Myomorpha Brandt, 1855 includes members of the families Dipodidae Fischer, 1817, Platacanthomyidae Alston, 1876, Spalacidae Gray, 1821, Calomyscidae Vorontsov and Potapova, 1979, Cricetidae Fischer, 1817, and Muridae Illiger, 1811 for South Asia. The suborder Hystricomorpha Brandt, 1855 includes members of the family Hystricidae Fischer, 1817 for South Asia (Carleton and Musser 2005; Molur et al. 2005).

**Suborder Sciuromorpha Brandt, 1855****Family Sciuridae Hemprich, 1820****Squirrels**

Pocock (1923a) recognized six subfamilies under family Sciuridae Hemprich, 1820. Simpson (1945) recognized the same but at the tribe level. Moore (1959) while recognizing the six tribes by Simpson (1945) added another tribe Ratufini. Since then this family has experienced numerous taxonomic changes. Recent molecular studies (Mercer and Roth 2003; Steppan et al. 2004) support major taxonomic changes that were adopted for the family Sciuridae Hemprich, 1820 (Thorington and Hoffmann 2005). The Family Sciuridae is represented by four subfamilies for the region (Thorington and Hoffmann 2005).

### Subfamily Ratufinae Moore, 1959

Moore (1959) recognized this taxon as tribe Ratufini following Simpson (1945). However, based on molecular studies by Steppan et al. (2004) and Mercer and Roth (2003), this has been upgraded to subfamily level.

### Genus *Ratufa* Gray, 1867

#### Giant Squirrels

This genus is represented by three species in South Asia of which one species is endemic to South Asia and one is endemic to India.

#### 34. *Ratufa macroura* (Pennant, 1769)

1769. *Sciurus macrourus* Pennant, Ind. Zool., 1:pl 1

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#### Grizzled Giant Squirrel (Sri Lankan Giant Squirrel)

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Type locality:	Highlands of Central and Uva Provinces, Sri Lanka
Synonyms:	<i>Sciurus zeylanicus</i> Ray, 1693 <i>Sciurus macrourus</i> Pennant, 1769 <i>Sciurus ceylonicus</i> Erxleben, 1777 <i>Sciurus ceylonica</i> Erxleben, 1777 <i>Sciurus ceilonensis</i> Boddaert, 1785 <i>Sciurus tennentii</i> Blyth, 1849 <i>Sciurus macrourus</i> var. <i>montanus</i> Kelaart, 1852 <i>Sciurus macrourus</i> var. <i>montana</i> Kelaart, 1852 <i>Ratufa macrourus albipes</i> Blyth, 1859 <i>Sciurus macrura</i> Blanford, 1891 <i>Ratufa macroura sinhala</i> Phillips, 1931
Subspecies:	<i>Ratufa macroura macroura</i> (Pennant, 1769) <i>Ratufa macroura melanochra</i> Thomas and Wroughton, 1915 <i>Ratufa macroura dandolena</i> Thomas and Wroughton, 1915
Distribution:	Endemic to South Asia <i>Ratufa macroura macroura</i> (Pennant, 1769) Endemic to Sri Lanka, North Central Province <i>Ratufa macroura melanochra</i> Thomas and Wroughton, 1915 Endemic to Sri Lanka, Southern Province <i>Ratufa macroura dandolena</i> Thomas and Wroughton, 1915 India—Kerala and Tamil Nadu Sri Lanka—Eastern, Central, North Eastern, Sabaragamuwa, Uva, and Western Provinces
Comments:	Ellerman (1961) listed three subspecies that were accepted later by Moore and Tate (1965), Phillips (1980b), and Corbet and Hill (1992)

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**35. *Ratufa indica* (Erxleben, 1777)**1777. *Sciurus indicus* Erxleben, Syst. Regn. Anim., 1:420

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**Indian Giant Squirrel (Malabar Giant Squirrel)**

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- Type locality: Bombay Presidency, India
- Synonyms: *Sciurus indicus* Erxleben, 1777  
*Sciurus purpureus* Zimmerman, 1777  
*Sciurus maximus* Schreber, 1784  
*Sciurus maxima* Schreber, 1784  
*Sciurus bombayus* Boddaert, 1785  
*Sciurus bombaya* Boddaert, 1785  
*Sciurus malabaricus* Scopoli, 1786  
*Sciurus malabarica* Scopoli, 1786  
*Sciurus elphinstonei* Sykes, 1831  
*Sciurus elphinstoni* Sykes, 1831  
*Sciurus indicus* var. *dealbatus* Blanford, 1897  
*Ratufa indicus* var. *bengalensis* Blanford, 1897  
*Ratufa indica* var. *bengalensis* Blanford, 1897  
*Ratufa indica superans* Ryley, 1913
- Subspecies: *Ratufa indica indica* (Erxleben, 1777)  
*Ratufa indica maxima* (Schreber, 1784)  
*Ratufa indica centralis* Ryley, 1913
- Distribution: Endemic to India  
*Ratufa indica indica* (Erxleben, 1777)  
Endemic to India, Andhra Pradesh, Gujarat, Karnataka, and Maharashtra  
*Ratufa indica maxima* (Schreber, 1784)  
Endemic to India, Kerala, and Tamil Nadu  
*Ratufa indica centralis* Ryley, 1913  
Endemic to India, Andhra Pradesh, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, and Tamil Nadu
- Comments: Abdulali and Daniel (1952) reported eight colour forms of this taxon from its range in India. Ellerman (1961) listed five subspecies—*Ratufa indica indica* (Erxleben, 1777), *Ratufa indica superans* Ryley, 1913, *Ratufa indica bengalensis* (Blanford 1897), *Ratufa indica centralis* Ryley, 1913, and *Ratufa indica maxima* (Schreber, 1784). Corbet and Hill (1992) following Moore and Tate (1965) recognized four subspecies including *Ratufa indica dealbata* (Blanford, 1897)—a pale coloured population from Gujarat. However, recent surveys have yielded no sightings of this taxon in its range in Gujarat
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**36. *Ratufa bicolor* (Sparrman, 1778)**1778. *Sciurus bicolor* Sparrman, Göthenborg Samhalle Hand. (Wet. Afd.), 1:70

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**Black Giant Squirrel (Malayan Giant Squirrel)**

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Type locality:	Anjer, W Java, Indonesia
Synonyms:	<i>Sciurus bicolor</i> Sparrman, 1778 <i>Sciurus giganteus</i> McClelland, 1839 <i>Sciurus macruroides</i> Hodgson, 1849 ( <i>nomen nudum</i> ) <i>Ratufa gigantea stigmosa</i> Thomas, 1923
Subspecies:	<i>Ratufa bicolor gigantea</i> (McClelland, 1839)
Distribution:	<i>Ratufa bicolor gigantea</i> (McClelland, 1839) Bangladesh—Sylhet Bhutan—Central, East, and West Bhutan India—Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland, Sikkim, and West Bengal Nepal—Eastern Nepal
Comments:	Ellerman and Morrison-Scott (1951) listed eight subspecies, while Ellerman (1961), Moore and Tate (1965), and Corbet and Hill (1992) have listed five subspecies of which only one occurs in South Asia

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**Subfamily Sciurinae Fischer de Waldheim, 1817**

Includes forms belonging to a single tribe *Pteromyini* Brandt, 1855 (Steppan et al. 2004) from South Asia. The tribe *Pteromyini* Brandt, 1855 is divided into two subtribes based on morphological and molecular studies (Thorington et al. 2002; Mercer and Roth 2003).

**Genus *Belomys* Thomas, 1908****Hairy-footed Flying Squirrel**

This is a monotypic genus belonging to subtribe *Pteromyina*. The genus *Belomys* Thomas, 1908 (= *Trogopterus* Heude, 1898) was earlier treated under family *Pteromyidae* Brandt, 1855 (Corbet and Hill 1992).

**37. *Belomys pearsonii* (Gray, 1842)**1842. *Sciuropterus pearsonii* Gray, Ann. Mag. Nat. Hist., (1)10:263

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**Hairy-footed Flying Squirrel**

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Type locality:	Darjeeling, Assam (now West Bengal), India
Synonyms:	<i>Sciuropterus pearsonii</i> Gray, 1842 <i>Trogopterus pearsonii</i> (Gray, 1842) <i>Sciuropterus villosus</i> Blyth, 1847 <i>Belomys trichotis</i> Thomas, 1908 <i>Belomys pearsonii trichotis</i> Thomas, 1908 <i>Trogopterus pearsonii trichotis</i> (Thomas, 1908)
Subspecies:	<i>Belomys pearsonii pearsonii</i> (Gray, 1842)
Distribution:	<i>Belomys pearsonii pearsonii</i> (Gray, 1842) Bhutan—Parts of Central, East, and West Bhutan India—Arunachal Pradesh, Manipur, Mizoram, Nagaland, Sikkim, and West Bengal Nepal—Central Nepal
Comments:	Ellerman (1940, 1961) and Hoffmann et al. (1993) included this taxon under <i>Belomys</i> Thomas 1908, while Corbet and Hill (1992) included it under <i>Trogopterus</i> Heude, 1898

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**Genus *Biswamoyopterus* Saha, 1981****Namdapha Flying Squirrel**

This is a monotypic genus belonging to subtribe Pteromyina. Earlier treated under family Pteromyidae Brandt, 1855 (Corbet and Hill 1992).

**38. *Biswamoyopterus biswasi* Saha, 1981**1981. *Biswamoyopterus biswasi* Saha, Bull. Zool. Surv. India, 4:333

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**Namdapha Flying Squirrel**

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Type locality:	Deban, Namdapha, Tirap dist. (now in Changlang dist.), and Arunachal Pradesh, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Biswamoyopterus biswasi</i> Saha, 1981 Arunachal Pradesh (known only from type locality in Changlang district and its vicinity)
Comments:	Resighted after the type description by Saha (1981) at Deban and Haldibari in December 2002 in Namdapha, Arunachal Pradesh (Ritschard 2003)

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**Genus *Eoglaucmys* A. H. Howel, 1915**

**Kashmir Flying Squirrel**

This is a monotypic genus and belongs to subtribe Glaucomyina (Thorington et al. 2002). The genus *Eoglaucmys* A. H. Howel, 1915 was earlier included under *Hylopetes* Gray, 1837 (Ellerman 1940, 1947a, 1961); however, was later raised to generic level following studies by Thorington et al. (1996) and Oshida et al. (2004).

**39. *Eoglaucmys fimbriatus* (Gray, 1837)**

1837. *Sciuropterus fimbriatus* Gray, Ann. Mag. Nat. Hist., 1:584

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Small Kashmir Flying Squirrel

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Type locality:	Shimla, Himachal Pradesh, India
Synonyms:	<i>Sciuropterus fimbriatus</i> Gray, 1837
	<i>Sciuropterus fimbriata</i> Gray, 1837
	<i>Sciuropterus baberi</i> Blyth, 1847
	<i>Hylopetes fimbriatus baberi</i> (Blyth, 1847)
Subspecies:	<i>Hylopetes fimbriatus</i> (Gray, 1837)
	<i>Eoglaucmys fimbriatus fimbriatus</i> (Gray, 1837)
Distribution:	<i>Eoglaucmys fimbriatus baberi</i> (Blyth, 1847)
	Endemic to South Asia
	<i>Eoglaucmys fimbriatus fimbriatus</i> (Gray, 1837)
	India—Jammu and Kashmir, Himachal Pradesh, and Uttarakhand
	Pakistan—Khyber Pakhtunkhwa
Comments:	<i>Eoglaucmys fimbriatus baberi</i> (Blyth, 1847)
	Afghanistan—Badakhshan and Nuristan Provinces
	India—Jammu and Kashmir
	Pakistan—Punjab
	Corbet and Hill (1992), Hoffmann et al. (1993), and Srinivasulu et al. (2004) treated the taxon <i>baberi</i> (See Blyth 1847) distinct following Chakraborty (1981). However, presently the taxon <i>baberi</i> (Blyth, 1847) is considered as subspecies of this species (Thorington et al. 1996)

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**Genus *Eupetaurus* Thomas, 1888**

**Woolly Flying Squirrel**

Monotypic genus and belongs to subtribe Pteromyina. Some authors included this genus under family Pteromyidae Brandt, 1855 (Corbet and Hill 1992), while some placed it under family Eupetauridae Schaub, 1953 (Hoffmann et al. 1993).

**40. *Eupetaurus cinereus* Thomas, 1888**1888. *Eupetaurus cinereus* Thomas, J. Asiatic Soc. Bengal, 57:258

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**Woolly Flying Squirrel**

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Type locality:	Gilgit Valley, Kashmir, India
Synonyms:	None
Subspecies:	None
Distribution:	<i>Eupetaurus cinereus</i> Thomas, 1888 Bhutan—West Bhutan India—Jammu and Kashmir (in Disputed Kashmir) and Sikkim Pakistan—Khyber Pakhtunkhwa
Comments:	Schaub (1953) erected a separate family Eupetauridae to accommodate this taxon. Later, McKenna (1962) retained it in Sciuridae based on its affinity with genus <i>Petaurista</i> Link, 1795. See Agrawal and Chakraborty (1970) and Zahler (1996) for distribution records. Molecular studies suggest that this taxon is distinct from other flying squirrels and is more closely related to <i>Belomys</i> and <i>Hylopetes</i> than to <i>Petaurista</i> (Yu et al. 2004a)

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**Genus *Hylopetes* Gray, 1867****Arrow-tailed Flying Squirrels**

Belongs to subtribe Glaucomyina. Corbet and Hill (1992) included this genus under Family Pteromyidae Brandt, 1855. Earlier, included *Eoglaucomyis* Howell, 1915 (Ellerman 1947a), however the two genera are now considered distinct (McKenna 1962; Thorington et al. 1996). Ellerman and Morrison-Scott (1951) recognized another species of the genus, namely, *Hylopetes phayrei* (Blyth, 1859) from Manipur, India. However, Hoffmann et al. (1993) and Srinivasulu et al. (2004) exclude it from South Asia for want of a confirmed locality in South Asia. Thorington and Hoffmann 2005 do not include South Asia in its range.

**41. *Hylopetes alboniger* (Hodgson, 1836)**1836. *Sciuropterus alboniger* Hodgson, J. Asiatic Soc. Bengal, 5:231

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**Particolored Flying Squirrel**

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Type locality:	Central and northern regions of Nepal
Synonyms:	<i>Sciuropterus alboniger</i> Hodgson, 1836 <i>Sciuropterus turnbulli</i> Gray, 1837 <i>Pteromys leachii</i> Gray, 1837
Subspecies:	<i>Hylopetes alboniger alboniger</i> (Hodgson, 1836)
Distribution:	<i>Hylopetes alboniger alboniger</i> (Hodgson, 1836) Bhutan—Parts of East, Central, and West Bhutan India—Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Sikkim, and West Bengal Nepal—Eastern Nepal
Comments:	None

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## Genus *Petaurista* Link, 1795

### Giant Flying Squirrels

Belongs to subtribe Pteromyina. Includes five species in South Asia. Recently, two new species, *Petaurista mechukaensis* Choudhury, 2007 and *Petaurista mishmiensis* Choudhury, 2009, have been described from Arunachal Pradesh, India. Due to unavailability of original descriptions, these are not included in the present work.

#### 42. *Petaurista petaurista* (Pallas, 1766)

1766. *Sciurus petaurista* Pallas, Misc. Zool., 54

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#### Red Giant Flying Squirrel (Common Giant Flying Squirrel)

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Type locality:	Western Java, Indonesia
Synonyms:	<i>Sciurus petaurista</i> Pallas, 1766 <i>Pteromys albiventer</i> Gray, 1834 <i>Petaurista petaurista albiventer</i> (Gray, 1834) <i>Pteromys inornatus</i> Geoffroy, 1844 <i>Pteromys birrelli</i> Wroughton, 1911 <i>Pteromys fulvinus</i> Wroughton, 1911
Subspecies:	<i>Petaurista petaurista albiventer</i> (Gray, 1834)
Distribution:	<i>Petaurista petaurista albiventer</i> (Gray, 1834) Afghanistan—Badakhshan and Nuristan Provinces Bangladesh—Chittagong and Sylhet Bhutan—Parts of West Bhutan India—Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Uttarakhand, and West Bengal (only northern areas) Nepal—Eastern Nepal Pakistan—Khyber Pakhtunkhwa and Punjab
Comments:	Ellerman (1940, 1961) and Ellerman and Morrison-Scott (1951) included <i>Petaurista philippensis</i> (Elliot, 1839) as one of the many subspecies of <i>Petaurista petaurista</i> (Pallas, 1766) as <i>Petaurista petaurista philippensis</i> (Elliot, 1839). Ellerman (1961) dealt in detail on nine subspecies of this taxon. Corbet and Hill (1992) revised this taxon and separated many forms either as synonyms or subspecies of <i>Petaurista philippensis</i> (Elliot, 1839)

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#### 43. *Petaurista magnificus* (Hodgson, 1836)

1836. *Sciuropterus magnificus* Hodgson, J. Asiatic Soc. Bengal, 5:231

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#### Hodgson's Giant Flying Squirrel

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Type locality:	Central and Northern regions of Nepal
Synonyms:	<i>Sciuropterus magnificus</i> Hodgson, 1836
Subspecies:	<i>Petaurista magnificus magnificus</i> (Hodgson, 1836) <i>Petaurista magnificus hodgsoni</i> Ghose and Saha, 1981

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**Hodgson's Giant Flying Squirrel**

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- Distribution: *Petaurista magnificus magnificus* (Hodgson, 1836)  
 Bhutan—Central, East, and West Bhutan  
 India—Sikkim and West Bengal  
 Nepal—Eastern Nepal  
*Petaurista magnificus hodgsoni* Ghose and Saha, 1981  
 India—Arunachal Pradesh, Sikkim, and West Bengal  
 Nepal—Central Nepal
- Comments: Ellerman (1940, 1961) and Ellerman and Morrison-Scott (1951) considered *Sciuropterus nobilis* Gray, 1842 and *Sciuropterus chrysotrix* Hodgson, 1844 under the present species. But see comments under *Petaurista nobilis* (Gray 1842). One record each of this species, from southern Tibet adjoining Nepal border by Feng et al. (1986) and Chittagong Hill Tracts, Bangladesh by Khan (1982), needs taxonomic confirmation
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**44. *Petaurista philippensis* (Elliot, 1839)**1839. *Pteromys philippensis* Elliot, Madras J. Litt. and Sci., 10:217

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**Indian Giant Flying Squirrel (Large Brown Flying Squirrel)**

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- Type locality: Near Madras\*, India
- Synonyms: *Pteromys philippensis* Elliot, 1839  
*Petaurista petaurista philippensis* (Elliot, 1839)  
*Pteromys oral* Tickell, 1842  
*Pteromys griseiventer* Gray, 1843  
*Petaurista cindrella* Wroughton, 1911  
*Petaurista lanka* Wroughton, 1911
- Subspecies: *Petaurista philippensis philippensis* (Elliot, 1839)
- Distribution: *Petaurista philippensis philippensis* (Elliot, 1839)  
 India—Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, and Tamil Nadu  
 Sri Lanka—Central, Sabaragamuwa, Southern, and Western Provinces
- Comments: \*No exact location was given but the paper in which it was dealt was about Mammals of South Mahratta Country. Ellerman (1961) and Ellerman and Morrison-Scott (1951) included this taxon under *Petaurista petaurista* (Pallas, 1766) as its subspecies. Phillips (1980b) described the Sri Lankan taxon under *Petaurista petaurista lanka* Wroughton, 1911 following Ellerman and Morrison-Scott (1951). Corbet and Hill (1992) reviewed and revised *Petaurista petaurista* (Pallas, 1766) forms and elevated "*philippensis*" forms to species level. Srinivasulu et al. (2004) proposed that the Sri Lankan population to be treated as distinct subspecies
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**45. *Petaurista elegans* (Muller, 1840)**

1840. *Sciuropterus elegans* Muller in Temminck, Verhandl. Nat. Gesch. Nederland. Overz. Bezitt., Zool., Zoogd. Indisch. Archipel, pp. 35, 56

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 Spotted Giant Flying Squirrel (Grey-headed Flying Squirrel)
 

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Type locality:	Java (Indonesia)
Synonyms:	<i>Sciuropterus elegans</i> Muller, 1840 <i>Petaurista elegans</i> (Muller, 1840) <i>Sciuropterus caniceps</i> Gray, 1842 <i>Petaurista caniceps</i> (Gray, 1842) <i>Sciuropterus senex</i> Hodgson, 1844 <i>Sciuropterus gorkhali</i> Lindsay, 1929 <i>Petaurista elegans gorkhali</i> (Lindsay, 1929)
Subspecies:	<i>Petaurista elegans caniceps</i> (Gray, 1842)
Distribution:	<i>Petaurista elegans caniceps</i> (Gray, 1842) Bhutan—Central and West Bhutan India—Arunachal Pradesh, Sikkim, and West Bengal Nepal—Central and Eastern Nepal
Comments:	Corbet and Hill (1992) treated the taxon <i>caniceps</i> (Gray 1842) distinct with a mention that it is sympatric with <i>Petaurista elegans</i> (Müller, 1840) in western Yunnan, China. However, Hoffmann et al. (1993) treated <i>Petaurista caniceps</i> (Gray 1842) and other synonyms under <i>Petaurista elegans</i> (Müller, 1840)

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**46. *Petaurista nobilis* (Gray, 1842)**

1842. *Sciuropterus nobilis* Gray, Ann. Mag. Nat. Hist., 10:263

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 Noble Giant Flying Squirrel (Gray's Giant Flying Squirrel)
 

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Type locality:	Darjeeling, West Bengal, India
Synonyms:	<i>Sciuropterus nobilis</i> Gray, 1842 <i>Sciuropterus chrysotrix</i> Hodgson, 1844
Subspecies:	<i>Petaurista nobilis nobilis</i> (Gray, 1842) <i>Petaurista nobilis singhei</i> Saha, 1977
Distribution:	Endemic to South Asia <i>Petaurista nobilis nobilis</i> (Gray, 1842) India—Sikkim and West Bengal Nepal—Parts of Eastern Nepal <i>Petaurista nobilis singhei</i> Saha, 1977 Bhutan—Central, East, and West Bhutan India—Arunachal Pradesh
Comments:	Ellerman (1940, 1961) and Ellerman and Morrison-Scott (1951) included this taxon under <i>Petaurista magnificus</i> (Hodgson 1836b). Ghose and Saha (1981) based on its distinctness considered <i>nobilis</i> Gray, 1842 as a distinct species and synonymized <i>Sciuropterus chrysotrix</i> Hodgson, 1844 with it. Corbet and Hill (1992), Hoffmann et al. (1993), and Srinivasulu et al. (2004) treat <i>nobilis</i> as a distinct species

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### Genus *Petinomys* Thomas, 1908

#### Dwarf Flying Squirrel

Earlier included under family Pteromyidae Brandt, 1855 (Corbet and Hill 1992). Belongs to subtribe Glaucomyina. It is represented by an endemic species in South Asia.

#### 47. *Petinomys fuscocapillus* (Jerdon, 1847)

1847. *Sciuropterus fuscocapillus* Jerdon, J. Asiatic Soc. Bengal, 16:867

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#### Travancore Flying Squirrel

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Type locality:	Travancore (now southern Kerala), India
Synonyms:	<i>Sciuropterus fuscocapillus</i> Jerdon, 1847 <i>Sciuropterus layardi</i> Kelaart, 1850 <i>Petinomys fuscocapillus layardi</i> (Kelaart, 1850)
Subspecies:	None
Distribution:	Endemic to South Asia <i>Petinomys fuscocapillus</i> (Jerdon, 1847) India—Karnataka, Kerala, and Tamil Nadu Sri Lanka—Central, North Central, Sabaragamuwa, Southern, and Uva Provinces
Comments:	Ellerman (1940, 1961) included two subspecies, namely <i>Petinomys fuscocapillus fuscocapillus</i> (Jerdon, 1847) and <i>Petinomys fuscocapillus layardi</i> (Kelaart 1850). Phillips (1980b) gave a detailed account of <i>Petinomys fuscocapillus layardi</i> (Kelaart 1850). Although Corbet and Hill (1992) synonymized the latter taxon with the nominate race, Srinivasulu et al. (2004) proposed that the Sri Lankan population should be treated as distinct subspecies. See Kurup (1989a) and Rajamani (2001) for distribution records in India

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### Subfamily Callosciurinae Pocock, 1923

Includes forms belonging to two tribes, Callosciurini Pocock, 1923 and Funambulini Pocock, 1923. This subfamily is restricted to Asia (Thorington and Hoffmann 2005).

### Genus *Callosciurus* Gray, 1867

#### Beautiful Squirrels

This genus is restricted to Oriental region from the Himalaya to Southeast Asia. It is represented by two species in South Asia.

**48. *Callosciurus erythraeus* (Pallas, 1799)**1799. *Sciurus erythraeus* Pallas, Nova. Spec. Quad. Glir. Ord., 377

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**Pallas' Squirrel (Red-bellied Squirrel)**

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Type locality:	Not Known, restricted to Assam, India (Bonhote, 1901); further restricted to Garo Hills, Assam (now in Meghalaya), India by Moore and Tate 1965
Synonyms:	<i>Sciurus erythraeus</i> Pallas, 1799 <i>Sciurus erythrogaster</i> Blyth, 1842 <i>Sciurus caniceps</i> Gray, 1842 <i>Callosciurus caniceps</i> (Gray, 1842) <i>Macroxus punctatissimus</i> Gray, 1867 <i>Sciurus gordonii</i> var. <i>intermedia</i> Anderson, 1879 <i>Callosciurus erythraeus bhutanensis</i> Bonhote, 1901 <i>Callosciurus erythraeus nagarum</i> Thomas, 1916 <i>Callosciurus crumpi</i> Wroughton, 1916 <i>Callosciurus erythraeus wellsii</i> Wroughton, 1921 <i>Callosciurus castaneoventris aquilo</i> Wroughton, 1921
Subspecies:	<i>Callosciurus erythraeus erythraeus</i> (Pallas, 1779) <i>Callosciurus erythraeus erythrogaster</i> (Blyth, 1842) <i>Callosciurus erythraeus intermedia</i> (Anderson, 1879)
Distribution:	<i>Callosciurus erythraeus erythraeus</i> (Pallas, 1779) Bangladesh—Chittagong and Sylhet Bhutan—Central, East, and West Bhutan India—Arunachal Pradesh, Assam, Meghalaya, and Sikkim <i>Callosciurus erythraeus erythrogaster</i> (Blyth, 1842) India—Assam, Manipur, Nagaland, and Mizoram <i>Callosciurus erythraeus intermedia</i> (Anderson, 1879) India—Meghalaya and Tripura
Comments:	Ellerman (1961) included nine subspecies that also included forms from Myanmar. Chakraborty (1985) reviewed genus <i>Callosciurus</i> Gray, 1867 in detail. Ellerman and Morrison-Scott (1951) and Ellerman (1961) included <i>Callosciurus crumpi</i> Wroughton, 1916 under <i>Callosciurus caniceps</i> (Gray, 1842) that later on the basis of its intergradation was synonymized with <i>Callosciurus erythraeus</i> (Pallas, 1779) by Corbet and Hill (1992). Corbet and Hill (1992) include in detail all probable and possible names of this species and indicate that forms from Bhutan and northeastern India belong to <i>Callosciurus erythraeus erythraeus</i> (Pallas, 1779). Agrawal and Chakraborty (1979) reviewed the Indian population of this species

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**49. *Callosciurus pygerythrus* (I. Geoffroy Saint-Hilaire, 1831)**

1831. *Sciurus pygerythrus* I. Geoffroy Saint-Hilaire, In: Belanger Voy. Inde Orient. Zool., 145. Mag. Zool. Paris, p. 5. Pl. 4–6

**Irrawaddy Squirrel (Hoary-bellied Squirrel)**


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Type locality:	Syriam, near Pegu, Burma (now Myanmar)
Synonyms:	<i>Sciurus pygerythrus</i> I. Geoffroy Saint-Hilaire, 1831 <i>Sciurus lokroides</i> Hodgson, 1836 <i>Sciurus assamensis</i> Gray ex Mc'Clelland, 1843 ( <i>nomen nudum</i> ) <i>Macroxus similis</i> Gray, 1867 <i>Sciurus blythi</i> Tytler, 1845 <i>Sciurus stevensi</i> Thomas, 1908
Subspecies:	<i>Callosciurus pygerythrus lokroides</i> (Hodgson, 1836) <i>Callosciurus pygerythrus blythi</i> (Tytler, 1854) <i>Callosciurus pygerythrus stevensi</i> (Thomas, 1908)
Distribution:	<i>Callosciurus pygerythrus lokroides</i> (Hodgson, 1836) Bhutan—Parts of Central, East, and West Bhutan India—Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Sikkim, and West Bengal Nepal—Parts of eastern and central Nepal <i>Callosciurus pygerythrus blythi</i> (Tytler, 1854) Bangladesh—Chittagong, Dhaka, and Sylhet India—Assam <i>Callosciurus pygerythrus stevensi</i> (Thomas, 1908) India—Assam
Comments:	Ellerman (1961) included seven subspecies and Chakraborty (1985) lists six subspecies under this taxon. For South Asia, only three subspecies are valid (Corbet and Hill 1992)

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**Genus *Dremomys* Heude, 1898****Plain Long-nosed Squirrel**

This genus is represented by three species in South Asia. Reviewed by Moore and Tate (1965) and Corbet and Hill (1992).

**50. *Dremomys lokriah* (Hodgson, 1836)**

1836. *Sciurus lokriah* Hodgson, J. Asiatic Soc. Bengal, 5:232

**Orange-bellied Himalayan Squirrel**


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Type locality:	“Central and Northern regions of Nepal” (=Nepal)
Synonyms:	<i>Sciurus lokriah</i> Hodgson, 1836 <i>Sciurus subflaviventris</i> Gray, 1843 <i>Dremomys lokriah subflaviventris</i> (Gray, 1843) <i>Sciurus locriah</i> Blanford, 1891 <i>Dremomys lokriah bhotia</i> Wroughton, 1916 <i>Dremomys macmillani</i> Thomas, 1916

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**Orange-bellied Himalayan Squirrel**

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Subspecies:	<i>Dremomys lokriah lokriah</i> (Hodgson, 1836) <i>Dremomys lokriah macmillani</i> Thomas, 1916 <i>Dremomys lokriah garonum</i> Thomas, 1922
Distribution:	<i>Dremomys lokriah lokriah</i> (Hodgson, 1836) Bangladesh—Sylhet Bhutan—Central, East, and West Bhutan India—Arunachal Pradesh, Assam, Meghalaya, Sikkim, and West Bengal Nepal—Central and Eastern Nepal <i>Dremomys lokriah macmillani</i> Thomas, 1916 India—Meghalaya, Nagaland, and Tripura <i>Dremomys lokriah garonum</i> Thomas, 1922 India—Meghalaya
Comments:	Ellerman and Morrison-Scott (1951) recognized two subspecies, namely <i>Dremomys lokriah lokriah</i> (Hodgson, 1836) and <i>Dremomys lokriah macmillani</i> Thomas, 1916, while Ellerman (1961) added <i>Dremomys lokriah pagus</i> Moore, 1956 which does not occur in South Asian region. Later Moore and Tate (1965) added <i>Dremomys lokriah garonum</i> Thomas, 1922 to the list. Corbet and Hill (1992) comment in detail on the intergradation of all these races and indicate that only <i>Dremomys lokriah lokriah</i> (Hodgson, 1836) and <i>Dremomys lokriah macmillani</i> (Thomas, 1916) are distinct enough to be considered as valid subspecies following Agrawal and Chakraborty (1979). However, we follow Thorington and Hoffmann (2005) in considering <i>Dremomys lokriah garonum</i> Thomas, 1922 as valid subspecies in addition to the two subspecies already recognized for this species in South Asia

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**51. *Dremomys pernyi* (Milne-Edwards, 1867)**1867. *Sciurus pernyi* Milne-Edwards, Rev. Mag. Zool. (Paris) ser. 2, 19:230, pl. 19

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**Perny's Long-nosed Squirrel**

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Type locality:	Moupin, Sichuan, China
Synonyms:	<i>Sciurus pernyi</i> Milne-Edwards, 1867
Subspecies:	<i>Dremomys pernyi pernyi</i> (Milne-Edwards, 1867) <i>Dremomys pernyi howelli</i> Thomas, 1922
Distribution:	<i>Dremomys pernyi pernyi</i> (Milne-Edwards, 1867) India—Arunachal Pradesh, Assam, Manipur, and Nagaland <i>Dremomys pernyi howelli</i> Thomas, 1922 India—Arunachal Pradesh
Comments:	Ellerman (1961) maintained two subspecies, namely <i>Dremomys pernyi pernyi</i> (Milne-Edwards 1867) and <i>Dremomys pernyi imus</i> Thomas, 1922, which do not occur in South Asia. Corbet and Hill (1992) listed numerous subspecies names, of which only <i>Dremomys pernyi howelli</i> Thomas, 1922 reported from Assam was considered valid for the region. Following Ellerman (1961), Srinivasulu et al. (2004) treated it as synonym of the nominate race. However, we recognized the above-mentioned two subspecies as valid for the region

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**52. *Dremomys rufigenis* (Blanford, 1878)**1878. *Sciurus rufigenis* Blanford, J. Asiatic Soc. Bengal, 47(2):156

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**Red-cheeked Squirrel**

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Type locality:	Mt. Mulaiyit, Tenasserim, S. Burma (Myanmar)
Synonyms:	<i>Sciurus rufigenis</i> Blanford, 1878
Subspecies:	<i>Dremomys rufigenis rufigenis</i> (Blanford, 1878)
Distribution:	<i>Dremomys rufigenis rufigenis</i> (Blanford, 1878) India—Arunachal Pradesh and Nagaland
Comments:	Ellerman (1961) included two subspecies, namely <i>Dremomys rufigenis rufigenis</i> (Blanford 1878) and <i>Dremomys rufigenis adamsoni</i> Thomas, 1914. The latter taxon does not occur in South Asia

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**Genus *Funambulus* Lesson, 1835****Striped Squirrels**

This genus is more or less restricted to South Asia, with an exception of a species that extends in range up to Iran. The genus *Funambulus* Lesson, 1835 was treated by Corbet and Hill (1992) under the subfamily Funambulinae Pocock, 1923 in Family Sciuridae Gray, 1821 following Prasad (1957). This genus is represented by five species in South Asia (Ellerman 1961; Corbet and Hill 1992) in two subgenera, namely, *Funambulus* Lesson, 1835 and *Prasadsciurus* Moore and Tate, 1965. Two species are endemic to South Asia, and one each is endemic to India and Sri Lanka. Molecular studies (Mercer and Roth 2003) show that this genus belongs to Callosciurinae.

**53. *Funambulus palmarum* (Linnaeus, 1766)**1766. *Sciurus palmarum* Linnaeus, Syst. Nat. 12th ed., 1:86

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**Common Palm Squirrel (Indian Palm Squirrel, Three-striped Palm Squirrel)**

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Type locality:	Madras, India
Synonyms:	<i>Sciurus palmarum</i> Linnaeus, 1766 <i>Sciurus pencillatus</i> Leach, 1814 <i>Sciurus indicus</i> Lesson, 1835 <i>Sciurus brodei</i> Blyth, 1849 <i>Sciurus kelaarti</i> Layard, 1851 <i>Funambulus palmarum kelaarti</i> (Layard, 1851) <i>Funambulus palmarum comorinus</i> Wroughton, 1905 <i>Funambulus palmarum favonicus</i> Thomas and Wroughton, 1915 <i>Funambulus palmarum olympius</i> Thomas and Wroughton, 1915 <i>Funambulus bengalensis</i> Wroughton, 1916 <i>Funambulus robertsoni</i> Wroughton, 1916 <i>Funambulus gossei</i> Wroughton and Davidson, 1919

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 Common Palm Squirrel (Indian Palm Squirrel, Three-striped Palm Squirrel)
 

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- Subspecies: *Funambulus palmarum palmarum* (Linnaeus, 1766)  
*Funambulus palmarum brodiei* (Blyth, 1849)  
*Funambulus palmarum roberstoni* (Wroughton, 1916)  
*Funambulus palmarum bellaricus* Wroughton, 1916  
*Funambulus palmarum matugamensis* Lindsay, 1926
- Distribution: Endemic to South Asia  
*Funambulus palmarum palmarum* (Linnaeus, 1766)  
 Endemic to India, Andhra Pradesh, Chhattisgarh, Jharkhand, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan, Tamil Nadu, and West Bengal  
*Funambulus palmarum brodiei* (Blyth, 1849)  
 Endemic to Sri Lanka, Central, North Central, North Western, Northern, Sabaragamuwa, Southern, Uva, and Western Provinces  
*Funambulus palmarum roberstoni* (Wroughton, 1916)  
 Endemic to India, Chhattisgarh, and Madhya Pradesh  
*Funambulus palmarum bellaricus* Wroughton, 1916  
 Endemic to India, Karnataka, and Maharashtra
- Comments: Belongs to subgenus *Funambulus* Lesson, 1835. Ellerman (1961) listed six subspecies of *Funambulus palmarum* in South Asia—*Funambulus palmarum kelaarti* (Layard 1851) (including “*olympius*” and “*favonicus*”), *Funambulus palmarum brodiei* (Blyth, 1849), *Funambulus palmarum roberstoni* (Wroughton, 1916), *Funambulus palmarum matugamensis* Lindsay, 1926, *Funambulus palmarum bellaricus* Wroughton, 1916, and *Funambulus palmarum palmarum* (Linnaeus, 1766) (including “*comorinus*”, “*gossei*” and “*bengalensis*”). Phillips (1980b) listed four subspecies from Sri Lanka—*Funambulus palmarum brodiei* (Blyth, 1849), *Funambulus palmarum kelaarti* (Layard, 1851), *Funambulus palmarum olympius* Thomas and Wroughton, 1915, and *Funambulus palmarum favonicus* Thomas and Wroughton, 1915 (including junior synonym *Funambulus palmarummatugamensis* Lindsay, 1926). Corbet and Hill (1992) propose the following subspecies in South Asia: *Funambulus palmarum comorinus* Wroughton, 1905, *Funambulus palmarum favonicus* Thomas and Wroughton, 1915, *Funambulus palmarum olympius* Thomas and Wroughton, 1915, *Funambulus palmarumbellaricus* Wroughton, 1916, and *Funambulus palmarummatugamensis* Lindsay, 1926. Srinivasulu et al. (2004) retain only four forms owing to character overlaps with two Indian [*Funambulus palmarum palmarum* (Linnaeus, 1766) and *Funambulus palmarum bellaricus* Wroughton, 1916] and two Sri Lankan [*Funambulus palmarum matugamensis* Lindsay, 1924 and *Funambulus palmarum kelaarti* (Layard, 1851)]. Thorington and Hoffmann (2005) synonymized *bellaricus* Wroughton, 1916, but we retain it as distinct following Ghaskadbi and Indurkar (1982) who established chromosomal variation between *palmarum* (Linnaeus, 1766) and *bellaricus* Wroughton, 1916
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**54. *Funambulus tristriatus* (Waterhouse, 1837)**1837. *Sciurus tristriatus* Waterhouse, Charlsworth's Mag. Nat. Hist., 1:499

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**Jungle Striped Squirrel (Western Ghats Striped Squirrel)**

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- Type locality: Western Ghats, India
- Synonyms: *Sciurus tristriatus* Waterhouse, 1837  
*Sciurus (Tamias) dussumieri* Milne-Edwards, 1867  
*Funambulus wroughtoni* Ryley, 1913  
*Funambulus tristriatus annandalei* Robinson, 1917  
*Funambulus thomasi* Wroughton and Davidson, 1919
- Subspecies: *Funambulus tristriatus tristriatus* (Waterhouse, 1837)  
*Funambulus tristriatus wroughtoni* (Ryley, 1913)  
*Funambulus tristriatus numarius* Wroughton, 1916
- Distribution: Endemic to India  
*Funambulus tristriatus tristriatus* (Waterhouse, 1837)  
Kerala, Maharashtra, and Tamil Nadu  
*Funambulus tristriatus wroughtoni* (Ryley, 1913)  
Karnataka and Kerala  
*Funambulus tristriatus numarius* Wroughton, 1916  
Maharashtra
- Comments: Belongs to subgenus *Funambulus* Lesson, 1835. Following Ellerman and Morrison-Scott (1951), Srinivasulu et al. (2004) do not treat *Funambulus tristriatus annandalei* Robinson, 1917 as distinct due to its resemblance with *Funambulus tristriatus numarius* Wroughton, 1916. This Indian endemic taxon is restricted to the Western Ghats
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**55. *Funambulus sublineatus* (Waterhouse, 1838)**1838. *Sciurus sublineatus* Waterhouse, Proc. Zool. Soc. London, 1838:19

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**Dusky-striped Squirrel (Dusky Palm Squirrel)**

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- Type locality: Nilgiri Hills, Madras (now Tamil Nadu), India
- Synonyms: *Sciurus sublineatus* Waterhouse, 1838  
*Sciurus desserti* Gervais, 1841  
*Sciurus trilineatus* Kelaart, 1852  
*Sciurus palmarum* var. *obscura* Pelzeln and Kohl, 1886  
*Funambulus kathleenae* Thomas and Wroughton, 1915  
*Tamoides sublineatus obscurus* Phillips, 1935
- Subspecies: *Funambulus sublineatus sublineatus* (Waterhouse, 1838)  
*Funambulus sublineatus obscurus* (Pelzeln and Kohl, 1886)
- Distribution: Endemic to South Asia  
*Funambulus sublineatus sublineatus* (Waterhouse, 1838)  
Endemic to India, Karnataka, Kerala, and Tamil Nadu  
*Funambulus sublineatus obscurus* (Pelzeln and Kohl, 1886)  
Endemic to Sri Lanka, Central, Sabaragamuwa, Southern, Uva, and Western Provinces
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**Dusky-striped Squirrel (Dusky Palm Squirrel)**

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Comments: Belongs to subgenus *Funambulus* Lesson, 1835. Ellerman (1961) and Corbet and Hill (1992) recognized two subspecies from the region. In India, this taxon is restricted to the Western Ghats. Dissanayake and Oshida (2012), based on mitochondrial DNA studies, propose the above-listed subspecies to be treated as distinct species

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**56. *Funambulus layardi* (Blyth, 1849)**1849. *Sciurus layardi* Blyth, J. Asiatic Soc. Bengal, 18:602

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**Layard's Striped Squirrel (Layard's Palm Squirrel)**

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Type locality: Ambegama Hills, Central Province, Sri Lanka  
 Synonyms: *Sciurus layardi* Blyth, 1849  
*Funambulus layardi dravidianus* Robinson, 1917  
*Tamoides layardi layardi* Phillips, 1935  
*Tamoides layardi signatus* Phillips, 1935  
*Funambulus layardi layardi* (Blyth, 1849)  
*Funambulus layardi signatus* Thomas, 1924  
 Subspecies: *Funambulus layardi layardi* (Blyth, 1849)  
 Distribution: Endemic to Sri Lanka  
*Funambulus layardi* (Blyth, 1849)  
 Central, Sabaragamuwa, and Southern Provinces  
 Comments: Belongs to subgenus *Funambulus* Lesson, 1835. Ellerman (1961) opined that *Funambulus layardi signatus* Thomas, 1924 could not be regarded as a race due to paucity of specimens. Phillips (1980b) retained two subspecies from Sri Lanka. Though Thorington and Hoffmann (2005) considered the taxon *Funambulus layardi dravidianus* Robinson, 1917 as valid, we do not include the same as it was described based on a juvenile individual and could be misidentified as mainland squirrel species. Also see Dissanayake and Oshida (2012), who propose this species to be closer to *F. sublineatus*

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**57. *Funambulus pennantii* Wroughton, 1905**1905. *Funambulus pennantii* Wroughton, J. Bombay Nat. Hist. Soc., 16(3):411

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**Northern Palm Squirrel (Five-striped Palm Squirrel)**

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Type locality: Mandavi, Surat dist., Bombay Presidency (now Gujarat), India  
 Synonyms: None  
 Subspecies: *Funambulus pennantii pennantii* Wroughton, 1905  
*Funambulus pennantii lutescens* Wroughton, 1905  
*Funambulus pennantii argentescens* Wroughton, 1905  
*Funambulus pennantii chhattisgarhi* Ghose, Mandal and Ghose, 2004  
*Funambulus pennantii gangutrianus* Ghose, Mandal and Ghose, 2004

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## Northern Palm Squirrel (Five-striped Palm Squirrel)

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- Distribution: *Funambulus pennantii pennantii* Wroughton, 1905  
Endemic to India, Andaman and Nicobar Islands (introduced), Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, and Rajasthan (parts of)
- Funambulus pennantii lutescens* Wroughton, 1905  
Endemic to South Asia  
India—Delhi, Gujarat, Haryana, Himachal Pradesh, Punjab, and Rajasthan  
Pakistan—Punjab
- Funambulus pennantii argentescens* Wroughton, 1905  
India—Gujarat and Rajasthan  
Pakistan—Balochistan, Punjab, and Sindh
- Funambulus pennantii chhattisgarhi* Ghose, Mandal and Ghose, 2004  
Endemic to South Asia  
Bangladesh—Khulna and Rajshahi  
India—Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh, Uttarakhand, and West Bengal
- Funambulus pennantii gangutrianus* Ghose, Mandal and Ghose, 2004  
Endemic to South Asia  
Bhutan—West Bhutan (only in foothills)  
India—Assam, Bihar, Madhya Pradesh, Sikkim, Uttar Pradesh, and West Bengal  
Nepal—No exact location
- Comments: Belongs to the subgenus *Prasadsciurus* Moore and Tate, 1965. Ellerman (1961) and Corbet and Hill (1992) synonymized *Funambulus pennantii argentescens* Wroughton, 1905 and *Funambulus pennantii lutescens* Wroughton, 1905 with the nominate race. It has been introduced in northeastern India and Andaman and Nicobar Islands by humans (Kurup 1968; Saha 1980). Thorington and Hoffmann (2005) consider the taxon *argentescens* Wroughton, 1905 as valid for the region. This taxon has been revised by Agrawal and Chakraborty (1979) and Corbet and Hill (1992). See Ghose et al. (2004) for taxonomic review
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**Genus *Tamiops* Allen, 1906****Asiatic Striped Squirrels**

The Genus *Tamiops* Allen, 1906 was earlier treated as subgenus under the Genus *Callosciurus* Gray, 1867 (Ellerman 1940; Moore 1959). Moore and Tate (1965) treated it as a distinct genus. Included under tribe Callosciurini (Moore 1959). This genus is represented by a single species in South Asia.

**58. *Tamiops macclellandi* (Horsfield, 1840)**1840. *Sciurus macclellandi* Horsfield, Proc. Zool. Soc. London, 1840:152

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**Himalayan Striped Squirrel**

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Type locality:	Assam, India
Synonyms:	<i>Sciurus macclellandi</i> Horsfield, 1840 <i>Sciurus pembertonii</i> Blyth, 1842 <i>Sciurus macclellandii manipurensis</i> Bonhote, 1900 <i>Callosciurus macclellandi manipurensis</i> (Bonhote, 1900)
Subspecies:	<i>Tamiops macclellandi macclellandi</i> (Hodgson, 1840)
Distribution:	<i>Tamiops macclellandi macclellandi</i> (Hodgson, 1840) Bhutan—Central, Eastern, and West Bhutan India—Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Sikkim, and West Bengal Nepal—Unknown Locality
Comments:	Ellerman (1940, 1961), Ellerman and Morrison-Scott (1951), and Moore (1959) treated the genus <i>Tamiops</i> Allen, 1906 as a subgenus of <i>Callosciurus</i> Gray, 1867. Later, Moore and Tate (1965) elevated it to the generic level. Ellerman (1961) included three subspecies, while Corbet and Hill (1992) included six subspecies from the Indo-Malayan region. Of these, only <i>Tamiops macclellandi macclellandi</i> (Horsfield, 1840) is found in South Asia

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**Subfamily Xerinae Osborn, 1910**

Earlier included as a tribe of subfamily Sciurinae Fischer de Waldheim, 1817, now considered distinct.

**Genus *Spermophilopsis* Blasius, 1884****Asian Ground Squirrel**

Monotypic genus belonging to tribe Xerini Osborn, 1910 (Moore 1959; Steppan et al. 2004).

**59. *Spermophilopsis leptodactylus* (Lichtenstein, 1823)**1823. *Arctomys leptodactylus* Lichtenstein, Naturh. Abh. Eversmann's Reise, p. 119

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**Long-clawed Ground Squirrel**

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Type locality:	Karata, 140 versts north-west of Bokhara, Russian Turkestan
Synonyms:	<i>Arctomys leptodactylus</i> Lichtenstein, 1823 <i>Spermophilus bactrianus</i> Scully, 1888
Subspecies:	<i>Spermophilopsis leptodactylus bactrianus</i> (Scully, 1888)
Distribution:	<i>Spermophilopsis leptodactylus bactrianus</i> (Scully, 1888) Afghanistan—Badghis, Baghlan, Balkh, Faryab, Herat, Jowzjan, Konduz, and Takhar Provinces
Comments:	See Paludan (1949) and Kullmann (1970) for locality records

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## Genus *Marmota* Blumenbach, 1779

### Marmots

The genus *Marmota* Blumenbach, 1799 belongs to tribe Marmotinae Pocock, 1923 (Moore 1959) and is represented by two species in South Asia.

#### 60. *Marmota himalayana* (Hodgson, 1841)

1841. *Arctomys himalayanus* Hodgson, J. Asiatic Soc. Bengal, 10:777

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#### Himalayan Marmot

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- Type locality: Nepal
- Synonyms: *Arctomys himalayanus* Hodgson, 1841  
*Marmota bobak himalayana* (Hodgson, 1841)  
*Arctomys hemachalanus* Hodgson, 1843  
*Arctomys hemachalana* Hodgson, 1843  
*Arctomys tibetanus* Gray, 1847
- Subspecies: None
- Distribution: *Marmota himalayana* (Hodgson, 1841)  
 India—Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir (also in Disputed Kashmir), Sikkim, and Uttarakhand  
 Nepal—Eastern, Western, and Mid-Western Nepal
- Comments: Ellerman and Morrison-Scott (1951), Ellerman (1961), and Corbet (1978) treated it as a subspecies of *Marmota bobak* (Muller, 1776). Hoffmann et al. (1993) indicate that Gromov et al. (1965) elevated the taxon “*himalayana*” to specific level. Roberts (1997) includes *Marmota himalayana* (Hodgson, 1841) from Pakistan based on a single record from the vicinity of Skardu in Disputed Kashmir
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#### 61. *Marmota caudata* (Geoffroy, 1844)

1844. *Arctomys caudatus* Geoffroy, In Jacquemont, Voy. dans l’Inde 4, Zool., p. 66

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#### Long-tailed Marmot (Golden Marmot)

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- Type locality: Hombhur (Gombhur), Upper reaches of Indus, Kashmir, India
- Synonyms: *Arctomys caudatus* Geoffroy, 1844  
*Arctomys aurea* Blanford, 1875  
*Arctomys aureus* Blanford, 1875  
*Arctomys dichrous* Anderson, 1875  
*Arctomys littledalei* Thomas, 1909  
*Marmota stirlingi* Thomas, 1916
- Subspecies: *Marmota caudata caudata* (Geoffroy, 1844)  
*Marmota caudata aurea* (Blanford, 1875)
- Distribution: *Marmota caudata caudata* (Geoffroy, 1844)  
 Afghanistan—Badakhshan, Baghlan, Nuristan, and Takhar Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir)  
*Marmota caudata aurea* (Blanford, 1875)  
 Pakistan—Khyber Pakhtunkhwa
- Comments: None
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## Genus *Spermophilus* F. Cuvier, 1825

### Ground Squirrels

The genus *Spermophilus* F. Cuvier, 1825 belongs to tribe Marmotinae Pocock, 1923 (Moore 1959) and is represented by one species in South Asia.

#### **62. *Spermophilus fulvus* (Lichtenstein, 1823)**

1823. *Arctomys fulvus* Lichtenstein, Naturh. Abh. Eversmann's Reise, p. 119

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#### Yellow Ground Squirrel

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Type locality:	River Kuwandzaliur, east of Alugodshary Mountains, north of Sea of Aral, Kirghizia; Ognev (1963) restricted it as "near the Kuvandzhar River, east of Mogudzhary Mountains, north of AralSea [Kazakhstan]"
Synonyms:	<i>Arctomys fulvus</i> Lichtenstein, 1823 <i>Citellus fulvus parthianus</i> Thomas, 1915
Subspecies:	<i>Spermophilus fulvus fulvus</i> (Lichtenstein, 1823)
Distribution:	<i>Spermophilus fulvus fulvus</i> (Lichtenstein, 1823) Afghanistan—Badghis, Balkh, Faryab, Ghazni, Herat, Jowzjan, Konduz, and Takhar Provinces
Comments:	See Lay (1967) for locality records

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## Family Gliridae Muirhead, 1819

### Dormice

Taxa belonging to this family have been listed under many different family names by different authors as in Muscardinidae Palmer, 1899 (Ellerman 1940; Ellerman and Morrison-Scott 1951), Gliridae Thomas, 1897 (Simpson 1945; Corbet and Hill 1992), and Myoxidae Gray, 1821 (Wahlert et al. 1993; Holden 1993b; Hutterer 1996). Srinivasulu and Pradhan (2003) following Holden (1993b) included family Myoxidae to be present in South Asia. Hopwood (1947) opined that the nomen *Glis* Bryson, 1762 (as accepted by some authors including Simpson 1945; Corbet and Hill 1992) was neither Linnaean nor binomial, and represented marmots, ground squirrels, voles, and lemmings and not dormice. The former nomen is presently accepted for this family (to represent dormice) following International Code of Zoological Nomenclature (International Commission on Zoological Nomenclature 1998). This family was earlier included under suborder Myomorpha of order Rodentia (Simpson 1945). However, Ellerman and Morrison-Scott (1951) do not consider the classification of Simpson (1945) of the order Rodentia as valid and include all the taxa under families in order Rodentia. Present-day morphological and molecular data do not include Gliridae under Myomorpha and show them to be more closely related to Sciurids (Bugge 1971, 1985; Bentz and Montgelard 1999; Adkins et al. 2001, 2003; Corneli 2002; Debry and Sagel 2001; Eizirik et al. 2001; Hartenberger 1971, 1994, 1998; Huchon et al. 1999, 2002; Kramerov 1999; Kramerov and Vessetzky 2001; Kramerov et al. 1999; Lavocat and Parent 1985; Lin et al. 2002; Meng 1990; Montgelard et al. 2001, 2002; Murphy et al. 2001a; Nedbal et al.

1996; Nikaido et al. 2003; Reyes et al. 1998; Vianey-Liaud 1974, 1985, 1989, 1994; Waddell and Shelley 2003; Yachontov and Potapova 1991). The classification of Glirids as worked out by Wahlert et al. (1993) is followed by Holden (2005). The family Gliridae includes two subfamilies of which subfamily Leithiinae Lydekker, 1896 is valid for the region.

### Subfamily Leithiinae Lydekker, 1896

See Holden (1993b) for comments on the status of this subfamily.

### Genus *Dryomys* Thomas, 1906

#### Dormice

The genus *Dryomys* Thomas, 1906 is represented by two species in South Asia.

#### 63. *Dryomys nitedula* (Pallas, 1778)

1778. *Mus nitedula* Pallas, Nov. Spec. Quad. Glir. Ord.:88

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#### Forest Dormouse

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Type locality:	Lower Volga river region, Russia
Synonyms:	<i>Mus nitedula</i> Pallas, 1778 <i>Myoxus pictus</i> Blanford, 1875 <i>Dryomys nitedula picta</i> (Blanford, 1875)
Subspecies:	<i>Dryomys nitedula pictus</i> (Blanford, 1875)
Distribution:	<i>Dryomys nitedula pictus</i> (Blanford, 1875) Afghanistan—Badakhshan, Badghis, Baghlan, Balkh, Bamian, Faryab, Ghazni, Ghowr, Herat, Jowzjan, Kabul, Khowst, Konar, Konduz, Laghman, Lowgar, Nangarhar, Nuristan, Oruzgan, Paktiya, Paktika, Parvan, Samangan, Sar-e-Pol, Takhar, Vardak, and Zabol Provinces Pakistan—Balochistan and Khyber Pakhtunkhwa
Comments:	Ellerman (1961) provides a brief account on this taxon

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#### 64. *Dryomys niethammeri* (Holden, 1996)

1996. *Dryomys niethammeri* Holden, Bonn. Zool. Bietrage 46(1–4):116

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#### Niethammer's Forest Dormouse

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Type locality:	Balochistan, Pakistan (1 mile E of Ziaret)
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Pakistan <i>Dryomys niethammeri</i> Holden, 1996 Balochistan
Comments:	Known only from three specimens (Holden 1996, 2005)

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**Suborder Myomorpha Brandt, 1855****Family Dipodidae Fischer, 1817****Dipodids**

Taxa belonging to this family have been either classified under single family Dipodidae Fischer, 1817 or in two families, namely, Dipodidae Fischer, 1817 and Zapodidae Coues, 1876 (Ellerman 1940; Corbet and Hill 1992). Sometimes as many as four families, namely, Allactaginidae Vinogradov, 1925, Dipodidae Fischer, 1817, Sicistidae Allen, 1901 (= Sminthidae Brandt, 1855), and Zapodidae Coues, 1876 are recognized (Shenbrot 1992). Holden (1993a) dealt in detail the synthesis of classification and taxonomy of known dipodids retaining a single family Dipodidae Fischer, 1817 pending further study (*also see* Stein 1990 and Shenbrot 1992). Currently six subfamilies—Sicistinae Allen, 1901, Zapodinae Coues, 1875, Cardiocraniinae Vinogradov, 1925, Euchoreutinae Lyon, 1901, Allactaginae Vinogradov, 1925, and Dipodinae Fischer, 1817—are recognized (Holden and Musser 2005). Taxa belonging to four subfamilies occur in South Asia.

**Subfamily Allactaginae Vinogradov, 1925**

Ellerman and Morrison-Scott (1951) included species belonging to genus *Allactaga* Cuvier, 1837 and *Jaculus* Erxleben, 1777 under subfamily Dipodinae G. Fischer, 1817. Holden (1993a) and Holden and Musser (2005) include *Allactaga* F. Cuvier, 1837 under subfamily Allactaginae Vinogradov, 1925 and *Jaculus* Erxleben, 1777 under Dipodinae G. Fischer, 1817.

**Genus *Allactaga* (F. Cuvier, 1837)****Four- and five-toed Jerboas**

Ellerman (1940) and Ellerman and Morrison-Scott (1951) treat this genus under subfamily Dipodinae Fischer, 1817, while Corbet and Hill (1992) listed it under family Dipodidae Fischer, 1817. Vinogradov (1925) erected subfamily Allactaginae to accommodate taxa belonging to *Allactaga* (F. Cuvier, 1837), *Allactagulus* (Nehring, 1897), and *Pygeretmus* (Gloger, 1841) (Ellerman and Morrison-Scott 1951). For further details refer Vinogradov (1937), Shenbrot (1984), and Pavlinov and Rossolimo (1987). Habibi (2003) included *Allactaga euphratica* Thomas, 1881 in Afghanistan from Kabul and Lowgar Provinces following Niethammer (1965) and Hassinger (1973). This taxon has been excluded from South Asia following Holden and Musser (2005). This genus is represented by three species in South Asia.

**65. *Allactaga elater* (Lichtenstein, 1828)**1828. *Dipus elater* Lichtenstein, Abh. König. Akad. Wiss., Berlin, 1825 [1828]:155

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**Small Five-toed Jerboa**

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Type locality:	Kirgiz steppe, W Kazakhstan
Synonyms:	<i>Dipus elater</i> Lichtenstein, 1825 <i>Alactaga [sic] indica</i> Gray, 1842 <i>Allactaga bactriana</i> Blyth, 1863 <i>Allactaga elater indica</i> Gray, 1842
Subspecies:	None
Distribution:	<i>Allactaga elater</i> (Lichtenstein, 1828) Afghanistan—Badakhshan, Badghis, Balkh, Faryab, Ghazni, Herat, Jowzjan, Konduz, Paktika, Takhar, and Zabol Provinces Pakistan—Balochistan and Khyber Pakhtunkhwa
Comments:	Holden (1993a) opines that the type locality given by Lichtenstein is in West Kazakhstan but not in East Kazakhstan as given by Ellerman and Morrison-Scott (1951), Corbet (1978), and Corbet and Hill (1992)

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**66. *Allactaga williamsi* Thomas, 1897**1897. *Allactaga williamsi* Thomas, Ann. Mag. Nat. Hist. 20:309

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**Williams' Jerboa**

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Type locality:	Near Van Golu, Turkey
Synonyms:	<i>Allactaga williamsi caprimulga</i> Ellerman, 1948
Subspecies:	None
Distribution:	<i>Allactaga williamsi</i> Thomas, 1897 Afghanistan—Bamian and Kabul Provinces
Comments:	Atallah and Harrison (1968) treated it as subspecies of <i>euphratica</i> Thomas, 1881, while some synonymized with it (Gromov and Erbaeva 1995; Pavlinov and Rossolimo 1998; Pavlinov et al. 1995; Shenbrot et al. 1995). Currently accepted as a distinct species ( <i>see</i> Ellerman and Morrison-Scott 1951; Çolak et al. 1994; Holden and Musser 2005). The taxon <i>caprimulga</i> Ellerman, 1948 which is in synonymy might prove to be a distinct species

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**67. *Allactaga hotsoni* Thomas, 1920**1920. *Allactaga hotsoni* Thomas, Jour. Bombay Nat. Hist. Soc., 26(4):936

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**Hotson's Five-toed Jerboa (Hotson's Jerboa)**

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Type locality:	Kant (=Kont), 20 miles SW of Sib, Persian Balochistan Iran
Synonyms:	None
Subspecies:	None
Distribution:	<i>Allactaga hotsoni</i> Thomas, 1920 Afghanistan—Helmand, Kandahar, and Nimruz Provinces Pakistan—Balochistan
Comments:	Ellerman (1961) provides a brief note on this taxon. Refer Brown (1980) and Roberts (1977, 1997) for further morphological and ecological details and distribution in Pakistan. Refer Hassinger (1973) and Habibi (2003) for Afghanistan records

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### Subfamily Cardiocraniinae Vinogradov, 1925

Includes dwarf jerboas belonging to the genera *Cardiocranius* Satunin, 1903, *Salpingotulus* Pavlinov, 1980 and *Salpingotus* Vinogradov, 1922 (Ellerman and Morrison-Scott 1951, Holden and Musser 2005), of which only one taxa belonging to the genus *Salpingotulus* Pavlinov, 1980 occurs in South Asia.

#### Genus *Salpingotulus* Pavlinov, 1980

##### Pygmy Jerboa

The genus *Salpingotulus* Pavlinov, 1980 was earlier treated as subgenus of *Salpingotus* Vinogradov, 1922 (Vorontsov and Shenbrot 1984); however, it is presently being accorded generic status (Holden and Musser 2005). This genus is represented by one species in South Asia.

#### 68. *Salpingotulus michaelis* (Fitzgibbon, 1966)

1966. *Salpingotus michaelis* Fitzgibbon, Mammalia, 30(3):431

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##### Balochistan Pygmy Jerboa (Dwarf Three-toed Jerboa)

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Type locality:	Nushki Plateau, NW Balochistan, Pakistan
Synonyms:	<i>Salpingotus michaelis</i> Fitzgibbon, 1966 <i>Salpingotus thomasi</i> Vinogradov, 1928
Subspecies:	None
Distribution:	Endemic to Pakistan <i>Salpingotulus michaelis</i> (Fitzgibbon, 1966) Balochistan
Comments:	Pavlinov (1980) placed this taxon under genus <i>Salpingotulus</i> , later Pavlinov and Rossolimo (1987) included it under <i>Salpingotus</i> Vinogradov, 1922, a trend that was also followed by Corbet and Hill (1992), Holden (1993a), and Srinivasulu and Jordan (2004). The taxon <i>Salpingotus thomasi</i> Vinogradov, 1928 is known only from the type specimen collected from an unknown locality in Afghanistan (Vinogradov 1928), but the specimen lacks any tag that clearly gives any information on the type locality, thus the country of origin is debatable (Holden and Musser 2005). Owing to conspecificity, the taxon <i>Salpingotus thomasi</i> Vinogradov, 1928 is synonymized with the present taxon. This taxon may probably also occur in Afghanistan

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### Subfamily Dipodinae G. Fischer, 1817

See comments under subfamily Allactaginae Vinogradov, 1925.

#### Genus *Jaculus* Erxleben, 1777

##### Desert Jerboas

Represented by one species in South Asia.

**69. *Jaculus blanfordi* (Murray, 1884)**1884. *Dipus blanfordi* Murray, Ann. Mag. Nat. Hist., [5]14:98

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**Blanford's Jerboa**

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Type locality:	Bushire, Iran
Synonyms:	<i>Dipus blanfordi</i> Murray, 1884
Subspecies:	None
Distribution:	<i>Jaculus blanfordi</i> (Murray, 1884) Afghanistan—Balkh, Farah, Helmand, Kandahar, Konduz, and Nimruz Provinces Pakistan—Balochistan
Comments:	None

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**Subfamily Sicistinae Allen, 1901**

Ellerman (1940) and Ellerman and Morrison-Scott (1951) included the taxon belonging to subfamily Sicistinae Allen, 1901 under family Dipodidae Fischer, 1817 and subfamily Sicistinae Allen, 1901, a trend followed by Holden (1993a). Corbet and Hill (1992) included it under family Zapodidae Coues, 1876. Some authors (Pavlinov and Rossolimo 1987; Shenbrot 1992) use the name Sminthidae (= Sminthi Brandt, 1855) as it predates Sicistinae Allen, 1901. Holden (1993a) and Holden and Musser (2005) opine that according to International Code of Zoological Nomenclature Sicistinae Allen, 1901 is the valid family name.

**Genus *Sicista* Gray, 1827****Birch Mice**

Represented by one species in South Asia.

**70. *Sicista concolor* (Büchner, 1892)**1892. *Sminthus concolor* Büchner, Bull. Sci. Acad. Imp. Sci. St. Petersbourg, 35(3):107

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**Chinese Birch Mouse**

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Type locality:	Guiduisha, N slope of Xining (=Sining) Mountains, Gansu, China
Synonyms:	<i>Sminthus concolor</i> Büchner, 1892 <i>Sminthus leathemi</i> Thomas, 1893 <i>Sicista concolor leathemi</i> (Thomas, 1893) <i>Sminthus flavus</i> True, 1894 <i>Sicista concolor flavus</i> (True, 1894)
Subspecies:	None
Distribution:	<i>Sicista concolor</i> (Büchner, 1892) India—Jammu and Kashmir (including Disputed Kashmir) Pakistan—Khyber Pakhtunkhwa
Comments:	Ellerman (1961) includes two subspecies, namely, <i>Sicista concolor leathemi</i> (Thomas, 1893) and <i>Sicista concolor flavus</i> (True, 1894) from the region. Holden (1993a) and Holden and Musser (2005) do not recognize these

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### Superfamily Muroidea Illiger, 1811

The superfamily Muroidea Illiger, 1811 includes six families (namely, Platacanthomyidae Alston, 1876, Spalacidae Gray, 1821, Calomyscidae Vorontsov and Potapova, 1979, Nesomyidae Major, 1897, Cricetidae Illiger, 1811, and Muridae Illiger, 1811) (Thomas 1896; Tullberg 1899; Ellerman 1941; Simpson 1945; Chaline et al. 1977; Lavocat 1978; Reig 1981, 1984; Watts and Baverstock 1995; Engel et al. 1998; Jansa et al. 1999; Martin et al. 2000; Michaux and Catzefflis 2000; Michaux et al. 2001; Ducroz et al. 2001; Jansa and Weksler 2004).

#### Family Platacanthomyidae Alston, 1876

##### Genus *Platacanthomys* Blyth, 1859

##### Spiny Dormouse

Earlier included under Gliridae (Blyth 1859a, b; Thomas 1896; Ellerman 1940, 1961; Simpson 1945; Ognev 1947), Cricetidae (Allen 1940; Miller and Gidley 1918; Pavlinov et al. 1995; Qiu 1989). However, following studies by Fejfar (1999), Stehlin and Schaub (1951), and Vorontsov (1979), this taxon has been included under Muroidea by Musser and Carleton (2005). Ellerman (1961) and Agrawal (2000) opine that this genus is monotypic and endemic to India.

#### 71. *Platacanthomys lasiurus* Blyth, 1859

1859. *Platacanthomys lasiurus* Blyth, J. Asiat. Soc. Beng., 28:289

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Malabar Spiny Dormouse (Malabar Spiny Tree Mouse)

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Type locality:	Alipi (now Allepey), Malabar (now Kerala), South India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Platacanthomys lasiurus</i> Blyth, 1859 Karnataka, Kerala, and Tamil Nadu
Comments:	This taxon has been described and reviewed by Peters (1865), Ellerman (1961), Corbet and Hill (1992), Jayson and Christopher (1995), and Agrawal (2000)

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#### Family Spalacidae Gray, 1821

##### Subfamily Rhizomyinae Winge, 1887

Represented by two genera in the region.

##### Genus *Cannomys* Thomas, 1915

##### Bamboo Rat

Represented by one species in South Asia. Ellerman (1961), Corbet and Hill (1992), and Agrawal (2000) opine that this genus is monotypic.

**72. *Cannomys badius* (Hodgson, 1841)**1841. *Rhizomys badius* Hodgson, Calcutta J. Nat. Hist., 2:60

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**Bay Bamboo Rat (Lesser Bamboo Rat)**

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Type locality:	Nepal
Synonyms:	<i>Rhizomys badius</i> Hodgson, 1841
Subspecies:	None
Distribution:	<i>Cannomys badius</i> (Hodgson, 1841) Bangladesh—Chittagong and Sylhet India—Assam, Manipur, Meghalaya, Mizoram, Nagaland, and West Bengal Nepal—Central, Eastern, and Southern Nepal
Comments:	Ellerman (1961) listed three subspecies, namely <i>Cannomys badius badius</i> (Hodgson, 1841), <i>Cannomys badius castaneus</i> (Blyth, 1843), and <i>Cannomys badius pater</i> (Thomas, 1911). Corbet and Hill (1992) add <i>Cannomys badius plumbescens</i> (Thomas, 1915) that was earlier synonymized to <i>Cannomys badius castaneus</i> (Blyth, 1843) by Ellerman (1961). Agrawal (2000) synonymized all nomen and does not recognize any subspecies. See Kock and Posamentier (1983) for Bangladesh records

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**Genus *Rhizomys* Gray, 1831****Bamboo Rat**

Represented by a one species in South Asia.

**73. *Rhizomys pruinosus* Blyth, 1851**1851. *Rhizomys pruinosus* Blyth, J. Asiat. Soc. Bengal, 20:519

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**Hoary Bamboo Rat**

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Type locality:	Cherrapunji, Khasi Hills, Meghalaya, India
Synonyms:	None
Subspecies:	None
Distribution:	<i>Rhizomys pruinosus</i> Blyth, 1851 India—Manipur, Meghalaya, and Nagaland
Comments:	Reviewed by Corbet and Hill (1992) and Agrawal (2000)

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**Family Calomyscidae Vorontsov and Potapova, 1979****Genus *Calomyscus* Schrank, 1798****Mouse-like Hamsters**

Represented by three species in South Asia. Ellerman (1961) and Corbet and Hill (1992) listed this genus under subfamily Cricetinae Fischer, 1817. Musser and Carleton (1993) referring Vorontsov and Potapova (1979) and Carleton and Musser (1989) remark that the combination of distinctive features set these forms apart from the old world hamsters and close to cricetodontines, a group hitherto supposed extinct. Thus, to accommodate them, Vorontsov and Potapova (1979) erected subfamily Calomyscinae. Ellerman and Morrison-Scott (1951) considered this genus as

monotypic, while Vorontsov et al. (1979) treated most of the subspecies of *Calomyscus bailwardi* Thomas, 1905 as distinct species. Commenting on this, Musser and Carleton (1993) opined that this arrangement “should be tested with additional data”. However, Corbet and Hill (1992) listed *baluchi* Thomas, 1920 including *hotsoni* Thomas, 1920 as subspecies of *Calomyscus bailwardi* Thomas, 1905. Presently, both these taxa are treated as distinct species and *Calomyscus bailwardi* Thomas, 1905 does not occur in South Asian region (Musser and Carleton 2005). The Afghan Mouse-like Hamster *Calomyscus mystax* Kahskarov, 1925 may probably also occur in South Asia along the Western Afghanistan (Tsytsulina 2008).

#### 74. *Calomyscus baluchi* Thomas, 1920

1920. *Calomyscus baluchi* Thomas, J. Bombay Nat. Hist. Soc., 26:939

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##### Baluchi Brush-tailed Mouse (Baluchi Calomyscus, Baluchi Mouse-like Hamster)

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Type locality:	Jelat (or Kelat) dist., Balochistan, Pakistan
Synonyms:	<i>Calomyscus mustersi</i> Ellerman, 1948
Subspecies:	None
Distribution:	Endemic to South Asia <i>Calomyscus baluchi</i> Thomas, 1920 Afghanistan—Kandahar, Nangarhar, Nimruz, and Nuristan Provinces Pakistan—Balochistan, Khyber Pakhtunkhwa, and Sindh
Comments:	Ellerman (1941, 1961), Corbet (1978), Ellerman and Morrison-Scott (1951) synonymized <i>Calomyscus baluchi</i> Thomas, 1920 with <i>Calomyscus bailwardi bailwardi</i> Thomas, 1905, while Corbet and Hill (1992) treated <i>baluchi</i> as a subspecies of <i>Calomyscus bailwardi</i> Thomas, 1905. Musser and Carleton (1993, 2005), Pavlinov et al. (1995), following Vorontsov et al. (1979), include <i>mustersi</i> Ellerman, 1948 under <i>Calomyscus baluchi</i> Thomas, 1920 that was earlier treated as subspecies of <i>Calomyscus bailwardi</i> Thomas, 1905 by Corbet and Hill (1992). See Norris et al. (2008)

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#### 75. *Calomyscus hotsoni* Thomas, 1920

1920. *Calomyscus hotsoni* Thomas, J. Bombay Nat. Hist. Soc., 26:938

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##### Hotson’s Brush-tailed Mouse (Hotson’s Mouse-like Hamster)

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Type locality:	Gwambuk Kaul, 50 km SW Pangjur (26°30'N, 63°50'E), Balochistan, Pakistan
Synonyms:	<i>Calomyscus bailwardi hotsoni</i> Thomas, 1920
Subspecies:	None
Distribution:	<i>Calomyscus hotsoni</i> Thomas, 1920 Pakistan—Balochistan
Comments:	This taxon was earlier included under <i>Calomyscus bailwardi</i> Thomas, 1905 and the taxon <i>mystax</i> Kashkarov, 1925 was synonymized under it (Ellerman 1941, 1961; Corbet and Hill 1992; Corbet 1978; Ellerman and Morrison-Scott 1951). However, Musser and Carleton (1993, 2005) consider the taxon <i>mystax</i> Kashkarov, 1925 distinct following karyological studies by Meyer and Malikov (1995, 2000), Malikov et al. (1999), and Graphodatsky et al. (2000). See Norris et al. (2008)

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**76. *Calomyscus elburzensis* Goodwin, 1938**1939. *Calomyscus elburzensis* Goodwin, Amer. Mus. Nov. 1050:1

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 Goodwin's Brush-tailed Mouse (Goodwin's Mouse-like Hamster)
 

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- Type locality: Degermatie, Kurkhud Mountains, district of Bujnurd, 4,000 ft, Elburz Mountains, Persia (in NE Iran)
- Synonyms: *Calomyscus bailwardi elburzensis* Goodwin, 1938
- Subspecies: None
- Distribution: *Calomyscus elburzensis* Goodwin, 1938  
Afghanistan—Herat Province
- Comments: This taxon was earlier included under *Calomyscus bailwardi* Thomas, 1905 (Ellerman and Morrison-Scott 1951) and then under *Calomyscus mystax* Kashkarov, 1925 (Vorontsov et al. 1979). Presently, considered distinct by Pavlinov and Rossolimo (1998) and Musser and Carleton (1993, 2005)
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**Family Cricetidae Fischer, 1817**

The family Cricetidae includes two subfamilies, namely, subfamily Cricetinae Fischer, 1817 and subfamily Arvicolinae Gray, 1821.

**Subfamily Cricetinae Fischer, 1817****Genus *Cricetulus* Milne-Edwards, 1871****Dwarf Hamsters**

Represented by two species in South Asia.

**77. *Cricetulus migratorius* (Pallas, 1773)**1773. *Mus migratorius* Pallas, Reise Prov. Russ. Reichs., 2:703

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 Grey Dwarf Hamster (Little Grey Hamster)
 

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- Type locality: Lower Ural river, W Kazakhstan
- Synonyms: *Mus migratorius* Pallas, 1773  
*Cricetus (Cricetulus) fulvus* Blanford, 1875
- Subspecies: *Cricetulus migratorius cinerascens* (Wagner, 1848)  
*Cricetulus migratorius fulvus* (Blanford, 1875)
- Distribution: *Cricetulus migratorius fulvus* (Blanford, 1875)  
Afghanistan—Badakhshan (in Wakhan Corridor) Province  
India—Jammu and Kashmir (including Disputed Kashmir)  
*Cricetulus migratorius cinerascens* (Wagner, 1848)  
Afghanistan—Badghis, Badakhshan, Baghlan, Balkh, Bamian, Faryab, Gahzni, Ghowst, Khowst, Lowgar, Paktiya, Parvan, Nangarhar, Nuristan, Samangan, Sar-e-Pol, Takhar, and Vardak Provinces  
Pakistan—Balochistan, Khyber Pakhtunkhwa, and Sindh
- Comments: Ellerman (1961) listed two subspecies occurring in South Asia, while Corbet and Hill (1992) do not mention anything about the same. Ellerman and Morrison-Scott (1951) list *Cricetulus migratorius cinerascens* (Wagner, 1848) from Pakistan. Agrawal (2000) remarks that the subspecies listed by Ellerman (1961) resemble closely, hence do not warrant subspecific separation. If that is the case, only forms belonging to nominate subspecies occur in South Asia (Srinivasulu and Pradhan 2003)
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**78. *Cricetulus alticola* Thomas, 1917**1917. *Cricetulus alticola* Thomas, Ann. Mag. Nat. Hist., (8)19:455

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**Ladakh Hamster (Tibetan Dwarf Hamster)**

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Type locality:	Shushul, Ladakh, Jammu and Kashmir, India
Synonyms:	<i>Cricetulus alticola tibetanus</i> Thomas and Hinton, 1922
Subspecies:	None
Distribution:	<i>Cricetulus alticola</i> Thomas, 1917 India—Jammu and Kashmir (in Ladakh) Nepal—Western Nepal
Comments:	Ellerman (1961) synonymized the Tibetan race with the nominate <i>Cricetulus alticola</i> Thomas, 1917. Ellerman (1941, 1961), Ellerman and Morrison-Scott (1951), Corbet (1978), Corbet and Hill (1992), Musser and Carleton (1993, 2005), and Pavlinov et al. (1995) treat this taxon as a distinct species while Feng et al. (1986) considered it as a subspecies of <i>Cricetulus kamensis</i> (Satunin, 1903)

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**Subfamily Arvicolinae Gray, 1821****Genus *Alticola* Blanford, 1881****Mountain Voles**

Represented by five species in South Asia, of which two species are endemic to India and one species is endemic to South Asia.

**79. *Alticola roylei* (Gray, 1842)**1842. *Arvicola roylei* Gray, Ann. Mag. Nat. Hist., (1)10:265

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**Royle's Mountain Vole**

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Type locality:	Kumaon, Uttar Pradesh (presently in Uttarakhand), India
Synonyms:	<i>Arvicola roylei</i> Gray, 1842 <i>Alticola roylei cautus</i> Hinton, 1926
Subspecies:	None
Distribution:	Endemic to India <i>Alticola roylei</i> (Gray, 1842) Himachal Pradesh and Uttarakhand
Comments:	Earlier included <i>argentatus</i> and many other taxa, hence presumed to be widespread in distribution (Ellerman and Morrison-Scott 1951; Ellerman 1961; Corbet 1978). Presently with recognition of the taxa included under this taxon as distinct species, the geographic distribution of this taxon becomes limited as outlined by Hinton (1926) and Ellerman (1941)

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**80. *Alticola stoliczkanus* (Blanford, 1875)**1875. *Arvicola stoliczkanus* Blanford, J. Asiatic Soc. Beng., 44(2):107

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**Stoliczka's Vole**

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- Type locality: Keunlun Mountains, North Ladhak, Jammu and Kashmir, India
- Synonyms: *Arvicola stoliczkanus* Blanford, 1875  
*Arvicola stracheyi* Thomas, 1880  
*Alticola stracheyi* (Thomas, 1880)  
*Microtus acrophilus* Miller, 1899  
*Microtus cricetulus* Miller, 1899  
*Alticola stoliczkanus acrophilus* (Miller, 1899)  
*Alticola bhatnagari* Biswas and Khajuria, 1955
- Subspecies: None
- Distribution: *Alticola stoliczkanus* (Blanford, 1875)  
India—Jammu and Kashmir and Sikkim  
Nepal—Eastern Nepal
- Comments: The taxon *stracheyi* (Thomas, 1880) was earlier included under this taxon (Schwarz 1939; Ellerman and Morrison-Scott 1951; Ellerman 1961; Gromov and Polyakov 1977; Corbet 1978; Rossolimo and Pavlinov 1992), which was later raised to species level (Feng et al. 1986; Agrawal 2000). Following Musser and Carleton (2005), we synonymized *stracheyi* (Thomas, 1880) under this taxon. Biswas and Khajuria (1955) described new taxon named *Alticola bhatnagari* Biswas and Khajuria, 1955 from type specimen collected from Mingbo, Lanmoche Valley, Khumbu, Nepal. Agrawal (2000) synonymized this species with *Alticola stracheyi* (Thomas, 1880) based on their similarities in body colour and measurements. The taxon *bhatnagari* Biswas and Khajuria, 1955 is now included under *Alticola stoliczkanus* (Blanford, 1875) along with *Alticola stracheyi* (Thomas, 1880) (Rossolimo and Pavlinov 1992; Mead and Nadachowski 1999; Musser and Carleton 2005). This taxon probably may also occur in Bhutan
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**81. *Alticola argentatus* (Severtzov, 1879)**1879. *Arvicola argentata* Severtzov, Izv. Soc. Nat. Anthropol. Etnogr., 8, 2:82

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**Silver Mountain Vole**

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- Type locality: Mashat, Karatau Mountains, Chimkentskaia Obl., Kazakhstan
- Synonyms: *Arvicola argentata* Severtzov, 1879  
*Alticola roylei argentata* (Severtzov, 1879)  
*Arvicola blanfordi* Scully, 1880  
*Alticola blanfordi* (Scully, 1880)  
*Alticola roylei blanfordi* (Scully, 1880)  
*Alticola blanfordi lahulius* Hinton, 1926  
*Alticola argentatus parvidens* Schlitter and Setzer, 1973
- Subspecies: None
- Distribution: *Alticola argentatus* (Severtzov, 1879)  
Afghanistan—Badakhshan, Konar, Laghman, Nuristan, and Parvan Provinces  
India—Jammu and Kashmir (including Disputed Kashmir)  
Pakistan—Khyber Pakhtunkhwa
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(continued)

(continued)

## Silver Mountain Vole

Comments: Ellerman and Morrison-Scott (1951) and Corbet (1978) included this taxon under *Alticola roylei* (Gray, 1842). Musser and Carleton (1993, 2005) treat this taxon as a distinct species following studies by Rossolimo (1989) and Rossolimo and Pavlinov (1992). Agrawal (2000) following Hinton (1926) treated *Alticola blanfordi* (Scully, 1880) as distinct species. The taxon *parvidens* Schlitter and Setzer, 1973, known from West Pakistan (*see* Nadachowski and Mead 1999), is presently under synonymy (Musser and Carleton 2005)

**82. *Alticola albicaudus* (True, 1894)**1894. *Arvicola albicauda* True, Proc. U. S. nation. Mus., 17:12

## White-tailed Mountain Vole

Type locality: Braldu Valley, Baltistan, Jammu and Kashmir, India  
 Synonyms: *Arvicola albicauda* True, 1894  
*Alticola roylei albicauda* (True, 1894)  
*Alticola acmaeus* Schwarz, 1939  
*Alticola roylei acmaeus* Schwarz, 1939  
 Subspecies: None  
 Distribution: Endemic to India  
*Alticola albicaudus* (True, 1894)  
 Jammu and Kashmir (in Disputed Kashmir and Ladakh)  
 Comments: Though Hinton (1926) proposed specific status to this taxon, it was included under *Alticola roylei* (Gray, 1842) (Ellerman and Morrison-Scott 1951; Corbet 1978; Gromov and Polyakov 1977). Rossolimo and Pavlinov (1992) revised and redescribed the species and raised it again to specific status (Musser and Carleton 2005)

**83. *Alticola montosa* (True, 1894)**1894. *Arvicola montosa* True, Proc. U. S. nation. Mus., 17:11

## Central Kashmir Mountain Vole (True's Vole)

Type locality: Central Jammu and Kashmir, India  
 Synonyms: *Arvicola montosa* True, 1894  
*Microtus imitator* Bonhote, 1905  
 Subspecies: None  
 Distribution: Endemic to South Asia  
*Alticola montosa* (True, 1894)  
 India—Jammu and Kashmir (including Disputed Kashmir)  
 Pakistan—Khyber Pakhtunkhwa  
 Comments: Ellerman (1961), Corbet (1978), and Gromov and Polyakov (1977) treated it as a subspecies of *Alticola roylei* (Gray, 1842). Musser and Carleton (1993, 2005), following Hinton (1926), Rossolimo and Pavlinov (1992), treated it as a distinct species

## Genus *Blanfordimys* Argyropulo, 1933

### Afghan vole

Earlier included under *Neodon* Hodgson 1849 (Chaline 1974) and *Pitymys* McMurtrie, 1831 (Corbet 1978). However, Ellerman (1941, 1948), Ellerman and Morrison-Scott (1951), Musser and Carleton (1993, 2005), Pavlinov and Rossolimo (1998), Pavlinov et al. (1995), Zagorodnyuk (1990), Siahsarvie et al. (2005), and Bannikova et al. (2009) considered this genus distinct. Represented by two species in South Asia (Ellerman and Morrison-Scott 1951).

#### **84. *Blanfordimys afghanus* (Thomas, 1912)**

1912. *Microtus (Phaiomys) afghanus* Thomas, Ann. Mag. Nat. Hist., 9:349

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#### Afghan Vole

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Type locality:	Gulran (about 35°N, 62°E, Afghanistan), Herat, Afghanistan
Synonyms:	<i>Microtus (Phaiomys) afghanus</i> Thomas, 1912
Subspecies:	<i>Microtus (Phaiomys) afghanus</i> Thomas, 1912
Distribution:	<i>Blanfordimys afghanus</i> (Thomas, 1912) Afghanistan—Badghis, Bamian, Farah, Ghazni, Ghowr, Herat, and Oruzgan Provinces
Comments:	See Niethammer (1970), Hassinger (1973), Lyapunova and Zagorodnyuk (1990), and Golenishchev and Sablina (1991) for taxonomic and karyotypic comments. Habibi (2003) does not include this taxon in Afghanistan

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#### **85. *Blanfordimys bucharensis* (Vinogradov, 1930)**

1930. *Microtus bucharensis* Vinogradov, Abh. Pamir Exped., 8:14

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#### Bucharian Vole

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Type locality:	Near village of Zivan, 2,200 m, 8 km S Pendzhikent, Zeravshan Range, Tajikistan
Synonyms:	<i>Microtus bucharensis</i> Vinogradov, 1912
Subspecies:	None
Distribution:	<i>Blanfordimys bucharensis</i> (Vinogradov, 1930) Afghanistan—Badakhshan Province
Comments:	Earlier considered distinct species (Ellerman, 1941), this taxon was included under <i>Blanfordimys afghanus</i> (Thomas, 1912) (Ellerman and Morrison-Scott 1951; Corbet 1978; Ognev 1964; Pavlinov and Rossolimo 1987). However, chromosomal and morphological studies suggest that this taxon is distinct (Musser and Carleton 2005). Habibi (2003) does not include this taxon in Afghanistan, while Musser and Carleton (2005) opine that it may possibly occur in northern Afghanistan

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## Genus *Ellobius* Fischer, 1814

### Mole Voles

Though earlier considered under subfamily Arvicolinae (Ellerman and Morrison-Scott 1951), Gromov and Polyakov (1977) removed this genus from Arvicolinae following which Pavlinov and Rossolimo (1987) and Gromov and Erbajeva (1995) included it under subfamily Cricetinae. However, based on morphometric and molecular studies, it is recognized as a distinct genus under Arvicolinae (Corbet 1978; Hooper and Hart 1962; Kretzoi 1969; McKenna and Bell 1997; Pavlinov and Rossolimo 1998; Pavlinov et al. 1995; Topachevskii and Rekovets 1982; Just et al. 1995; Mezhzherin et al. 1995). Two subgenera, namely, *Afghanomys* Topachevski, 1965 and *Ellobius* Fischer, 1814, are recognized under this genus (Musser and Carleton 2005). Includes two species in South Asia.

#### 86. *Ellobius talpinus* (Pallas, 1770)

1770. *Mus talpinus* Pallas, Nov. Comm. Acad. Sci. Pteropoli, 14, 1:568

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##### Northern Mole Vole

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Type locality:	Between Kuibyshev (=Samara) and Kostychi, W Bank of Volga river, Russia
Synonyms:	<i>Mus talpinus</i> Pallas, 1770
Subspecies:	None
Distribution:	<i>Ellobius talpinus</i> (Pallas, 1770) Afghanistan—Balkh and Faryab Provinces Pakistan—Balochistan
Comments:	Although Musser and Carleton (2005) do not include Afghanistan in its range, we include this taxon from South Asia based on Hassinger (1973) and Habibi (2003)

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#### 87. *Ellobius fuscocapillus* (Blyth, 1842)

1842. *Georhynchus fuscocapillus* Blyth, J. Asiatic Soc. Beng., 10:928. [*nomen nudum* 1843, J. Asiatic Soc. Beng., 11:887]

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##### Afghan Mole-vole (Quetta Mole-vole)

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Type locality:	Quetta, Balochistan, Pakistan
Synonyms:	<i>Georhynchus fuscocapillus</i> Blyth, 1842
Subspecies:	None
Distribution:	<i>Ellobius fuscocapillus</i> (Blyth, 1842) Afghanistan—Badghis and Herat Provinces Pakistan—Khyber Pakhtunkhwa
Comments:	See Roberts (1999) for distribution records in Pakistan

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## Genus *Eothenomys* Miller, 1896

### Voles

The genus *Eothenomys* Miller, 1896 was reviewed by Kaneko (1992, 1996, 2002). Represented by a single species in South Asia (Ellerman 1961; Corbet and Hill 1992). Two species groups, namely *melanogaster* group and *chinensis* group, are recognized (Kaneko 1996; Luo et al. 2004; Musser and Carleton 2005).

#### **88. *Eothenomys melanogaster* (Milne-Edwards, 1871)**

1871. *Arvicola melanogaster* Milne-Edwards, in David Nouv. Arch. Mus. Hist. Nat. Paris, Bull., 7:93 (footnote)

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Pere David's Vole (Pere David's Red-backed Vole)

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Type locality:	Moupin, W Sichuan, China
Synonyms:	<i>Arvicola melanogaster</i> Milne-Edwards, 1871 <i>Eothenomys melanogaster libonotus</i> Hinton, 1923
Subspecies:	None
Distribution:	<i>Eothenomys melanogaster</i> (Milne-Edwards, 1871) India—Arunachal Pradesh
Comments:	Ellerman (1961) included two subspecies, namely <i>Eothenomys melanogaster cachinus</i> (Thomas, 1921) and <i>Eothenomys melanogaster libonotus</i> Hinton, 1923. The former subspecies is now considered distinct (Musser and Carleton 2005). This taxon has been reviewed by Kaneko (2002) and belongs to <i>melanogaster</i> species group

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## Genus *Hyperacrius* Miller, 1896

### Voles

Represented by two endemic species in South Asia (Ellerman 1961; Corbet and Hill 1992). *Hyperacrius* was proposed by Miller (1896) as a subgenus, Hinton (1926) raised it to generic level. The taxonomic and geographic aspect of this taxon has been studied by Phillips (1969).

#### **89. *Hyperacrius wynnei* (Blanford, 1881)**

1881. *Arvicola wynnei* Blanford, J. Asiatic Soc. Beng., 49(1880):244–245

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Murree Vole

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Type locality:	Murree, Rawalpindi, Punjab, Pakistan
Synonyms:	<i>Arvicola wynnei</i> Blanford, 1881
Subspecies:	None
Distribution:	Endemic to South Asia <i>Hyperacrius wynnei</i> (Blanford 1881) India—Jammu and Kashmir Pakistan—Khyber Pakhtunkhwa and Punjab
Comments:	Phillips (1969) restricts its range to north Pakistan. However, Corbet and Hill (1992) and Agrawal (2000) opine that it also occurs in India based on Ellerman's (1961) report of its presence from Sardalla in Kashmir. Populations of this taxon in India have been reviewed by Agrawal (2000) and those in Pakistan have been reviewed by Phillips (1969)

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**90. *Hyperacrius fertilis* (True, 1894)**1894. *Arvicola fertilis* True, Proc. U. S. nation. Mus., 17:10

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**Subalpine Kashmir Vole (Burrowing Vole)**

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Type locality:	Pir Panjal Mt., Jammu and Kashmir, India
Synonyms:	<i>Arvicola fertilis</i> True, 1894 <i>Microtus (Hyperacrius) aitchisoni</i> Miller, 1897 <i>Microtus (Hyperacrius) brachelix</i> Miller, 1899 <i>Hyperacrius fertilis zygomaticus</i> Phillips, 1969
Subspecies:	None
Distribution:	Endemic to South Asia <i>Hyperacrius fertilis</i> (True, 1894) India—Jammu and Kashmir (including Disputed Kashmir) Pakistan—Khyber Pakhtunkhwa
Comments:	Ellerman (1961) recognized <i>Hyperacrius fertilis brachelix</i> (Miller, 1899) as distinct subspecies. Ellerman (1961) opined that <i>Hyperacrius aitchisoni</i> Miller (1897) could “most likely be a race of <i>fertilis</i> , but might perhaps be a race of <i>wynnei</i> ”. Corbet and Hill (1992) however synonymized <i>Hyperacrius aitchisoni</i> (Miller, 1897) with <i>Hyperacrius fertilis</i> (True, 1894). Agrawal (2000) synonymized <i>Microtus (Hyperacrius) brachelix</i> (Miller, 1899) with <i>Hyperacrius fertilis</i> (True, 1894) and does not mention anything about <i>Hyperacrius aitchisoni</i> (Miller, 1897). See Phillips (1969) for further details

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**Genus *Microtus* Schrank, 1798****Voles**

Earlier included *Neodon* Hodgson, 1849 (Allen 1940; Gromov and Erbajeva 1995; Gromov and Polyakov 1977; Pavlinov et al. 1995), which has been treated as distinct by Hinton (1923a, b, 1926), Zagorodnyuk (1990, 1992), and Musser and Carleton (2005). Represented by one species in South Asia. A few taxa, belonging to this genus—like *Microtus socialis* (Pallas, 1773), *Microtus guentheri* (Danford and Alston, 1880), and *Microtus paradoxurus* (Ognev and Heptner, 1928)—may possibly occur in Afghanistan. These have not been included in this work due to the lack of clarity on taxonomic status of specimens originating from Afghanistan (*see* Paludan 1949; Niethammer 1970; Hassinger 1973; Habibi 2003; Musser and Carleton 2005 for details). Additionally, the taxon *Microtus clarkei* Hinton, 1923 might possibly occur in northeastern and eastern most parts of Arunachal Pradesh bordering southern parts of China and northern most parts of Myanmar respectively.

**91. *Microtus ilaeus* Thomas, 1912**1912. *Microtus ilaeus* Thomas, Ann. Mag. Nat. Hist. 9:348

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**Kazakhstan Vole**

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Type locality:	On banks of River Ussek, Djarkent, Semirechya (Eastern Russian Turkestan)
Synonyms:	<i>Microtus transcaspicus ilaeus</i> Thomas, 1912
Subspecies:	None
Distribution:	<i>Microtus ilaeus</i> Thomas, 1912 Afghanistan—Baghlan, Kabul, Laghman, Lowgar, Parvan, Takhar, and Vardak Provinces
Comments:	Forms of this taxon reported from Afghanistan were earlier recorded as “ <i>M. arvalis</i> ” by Niethammer (1970) and Hassinger (1973), and <i>M. transcaspicus</i> Satunin, 1905 (Musser and Carleton 2005)

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**Genus *Neodon* Hodgson, 1849****Field Voles**

Ellerman (1941), Ellerman and Morrison-Scott (1951), and Corbet (1978) considered the genus *Neodon* Hodgson, 1849 as a subgenus of *Pitymys* McMurtree, 1831. Some others included it under *Microtus* Schrank, 1798 (Allen 1940; Gromov and Erbajeva 1995; Gromov and Polyakov 1977; Musser and Carleton 1993; Pavlinov et al. 1995), whereas Hinton (1923a, b, 1926), Zagorodnyuk (1990, 1992), and Musser and Carleton (2005) treated it as distinct. Represented by two species in South Asia.

**92. *Neodon sikimensis* Horsfield, 1851**1851. *Neodon sikimensis* Horsfield, A Catal. Mammalia Mus. Hon. East India Comp.:145–146

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**Sikkim Vole**

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Type locality:	Sikkim, India
Synonyms:	<i>Pitymys sikimensis</i> (Hodgson, 1849) <i>Microtus sikimensis</i> (Hodgson, 1849) <i>Arvicola thricolis</i> Gray, 1863
Subspecies:	None
Distribution:	<i>Neodon sikimensis</i> (Horsfield, 1841) Bhutan—West Bhutan India—Sikkim and West Bengal Nepal—Central, Eastern, and Western Nepal
Comments:	Earlier included under subgenus <i>Neodon</i> of genus <i>Pitymys</i> (Ellerman and Morrison-Scott 1951), later included under genus <i>Microtus</i> (Ellerman 1961). Presently included under genus <i>Neodon</i> Hodgson, 1849 (Musser and Carleton 2005). This taxon has been reviewed by Agrawal (2000), Abe (1971), and Gruber (1969). Till now type authority was attributed as Hodgson, 1849 and also recently as Horsfield, 1841 (Musser and Carleton 2005, p. 1032), corrected to Horsfield, 1851 by Kaneko and Smeenk (1996)

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**93. *Neodon juldaschi* (Severtzov, 1879)**1879. *Arvicola juldaschi* Severtzov, Sap. Turk. Otd. Obsh. Lubit. Estestv., 1:63

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**Juniper Vole**

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Type locality:	Near Aksu, Karakul Lake basin, Kirghizia
Synonyms:	<i>Arvicola juldaschi</i> Severtzov, 1879 <i>Microtus juldaschi</i> (Severtzov, 1879) <i>Pitymys juldaschi</i> (Severtzov, 1879) <i>Microtus carruthersi</i> Thomas, 1909 <i>Pitymys carruthersi</i> (Thomas, 1909)
Subspecies:	None
Distribution:	<i>Neodon juldaschi</i> (Severtzov, 1879) Afghanistan—Badakhshan and Bamian Provinces India—Jammu and Kashmir (including disputed Kashmir) Pakistan—Khyber Pakhtunkhwa
Comments:	The taxon <i>carruthersi</i> (Thomas, 1909) was treated by some as distinct (Ellerman 1941; Ellerman and Morrison-Scott 1951; Ognev 1964). It was synonymized with <i>Neodon juldaschi</i> (Severtzov 1879; Corbet 1978), a view followed by Gromov and Erbajeva (1995), Gromov and Polyakov (1977), Pavlinov and Rossolimo (1987, 1998), Pavlinov et al. (1995), and Musser and Carleton (1993, 2005) as they are examples of the same species

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**Genus *Phaiomys* Blyth, 1863****Mountain Voles**

Treated as a distinct genus by some (Hinton 1923, 1926; Ellerman 1941; Martin 1987, 1989; Repenning 1992; Repenning et al. 1990) as a subgenus of *Microtus* (Allen 1940; Ellerman and Morrison-Scott 1951; Musser and Carleton 1993; Ognev 1950), as a subgenus of *Pitymys* (Corbet 1978; Ellerman 1947a, b, 1961; Zheng and Wang 1980), as a subgenus of *Neodon* (Gromov and Polyakov 1977; Zagorodnyuk 1990, 1992). It is treated as distinct based on its morphological, cranial, and dental characters (Musser and Carleton 2005).

**94. *Phaiomys leucurus* Blyth, 1863**1863. *Phaiomys leucurus* Blyth, J. Asiatic Soc. Beng., 32:89

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**Blyth's Vole**

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Type locality:	Lake Chomoriri (Tsomoriri), Ladakh, India
Synonyms:	<i>Microtus leucurus</i> (Blyth, 1863) <i>Arvicola blythi</i> Blanford, 1875 <i>Microtus (Phaiomys) waltoni petulans</i> Wroughton, 1911 <i>Pitymys leucurus petulans</i> (Wroughton, 1911) <i>Phaiomys everesti</i> Thomas and Hinton, 1922 <i>Pitymys leucurus everesti</i> (Thomas and Hinton, 1922)
Subspecies:	None

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Blyth's Vole

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- Distribution: *Phaiomys leucurus* Blyth, 1863  
India—Jammu and Kashmir and Himachal Pradesh  
Nepal—Eastern and Western Nepal
- Comments: Ellerman (1961) included this species under subgenus *Phiaomys* Blyth, 1863, and listed three subspecies *Pitymys/leucurus leucurus* (Blyth, 1863), *Pitymys leucurus petulans* (Wroughton, 1911), and *Pitymys leucurus everesti* (Thomas and Hinton, 1922). Agrawal (2000) synonymized all the subspecies under the nominate species
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**Family Muridae Illiger, 1811**

The family Muridae Illiger, 1811, includes forms belonging to three subfamilies, namely, Deomyinae Thomas, 1888, Gerbillinae Gray, 1825, and Murinae Illiger, 1811 in South Asia (Musser and Carleton 2005; Pavlinov 2008).

**Subfamily Deomyinae Thomas, 1888****Genus *Acomys* I. Geoffroy, 1838****Spiny Mice**

Only one species occurs in South Asia (Ellerman 1961; Corbet and Hill 1992).

**95. *Acomys dimidiatus* (Cretzschmar, 1826)**

1826. *Mus dimidiatus* Cretzschmar, in Rüppel, Atlas zu der Reise im Nördliche Africa, Saugeth. 13:37

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Arabian Spiny Mouse

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- Type locality: Sinai, Egypt
- Synonyms: *Mus dimidiatus* Cretzschmar, 1826  
*Acomys cahirinus dimidiatus* (Cretzschmar, 1826)  
*Acomys flavidus* Thomas, 1917  
*Acomys cahirinus flavidus* Thomas, 1917
- Subspecies: None
- Distribution: *Acomys dimidiatus* (Cretzschmar, 1826)  
Pakistan—Balochistan and Sindh
- Comments: Belongs to subgenus *Acomys* I. Geoffroy, 1838. Much confusion has arisen over the specific identity of species within the *Acomys cahirinus—dimidiatus* complex. Ellerman (1961) remarked that *Acomys cahirinus flavidus* (Thomas, 1917) was not distinguishable from *Acomys dimidiatus* (Cretzschmar, 1826). Musser and Carleton (1993, 2005) opined that the *cahirinus—dimidiatus* complex needed critical systematic revision. However, chromosomal studies (Volobouev et al. 1991), karyological studies (Kunze et al. 1999; Volobouev et al. 2002), phylogenetic analysis based on mtDNA cytb (Barome et al. 2000, 2001a, b), and dental characters (Denys et al. 1994) separate a number of species within the complex including *Acomysdimidiatus* (Cretzschmar, 1826). Hence *Acomys dimidiatus* (Cretzschmar, 1826), here, has been considered as a valid species (see Volobouev et al. 2007 and Frynta et al. 2010). Distribution in Pakistan was reviewed by Bates (1994) under *Acomys cahirinus* (Desmarest, 1819)
-

### Subfamily Gerbillinae Gray, 1825

#### Genus *Gerbillus* Desmarest, 1804

##### Gerbils

Represented by four species in South Asia (Corbet and Hill 1992) of which one species is endemic to South Asia. See Pavlinov (2008) for phylogeny and classification of subfamily Gerbillinae Gray, 1825.

#### 96. *Gerbillus nanus* Blanford, 1875

1875. *Gerbillus nanus* Blanford, Ann. Mag. Nat. Hist., (4)16:312

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##### Balochistan Gerbil

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- Type locality: Gedrosia, Balochistan, Pakistan  
 Synonyms: *Dipodillus indus* Thomas, 1920  
 Subspecies: *Gerbillus nanus nanus* Blanford, 1875  
 Distribution: *Gerbillus nanus nanus* Blanford, 1875  
                   Afghanistan—Helmand and Kandahar Provinces  
                   India—Gujarat and Rajasthan  
                   Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh  
 Comments: Belongs to subgenus *Hendecapleura* Lataste, 1894. Ellerman (1961) treated *Dipodillus indus* Thomas, 1920 as subspecies of *Gerbillus dasyurus* (Wagner, 1842). Subsequently, after Harrison (1972), the taxon *Dipodillus indus* Thomas, 1920 has been synonymized with *Gerbillus nanus* Blanford, 1875. Reviewed by Lay and Nadler (1975), Agrawal (2000), and Chakraborty and Agrawal (2000)
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#### 97. *Gerbillus gleadowi* Murray, 1886

1886. *Gerbillus gleadowi* Murray, Ann. Mag. Nat. Hist., (5)17:246

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##### Little Hairy-footed Gerbil

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- Type locality: Beruto, 15 miles SW of Rehti, Rohri dist., Sindh, Pakistan  
 Synonyms: None  
 Subspecies: None  
 Distribution: Endemic to South Asia  
                   *Gerbillus gleadowi* Murray, 1886  
                   India—Gujarat and Rajasthan  
                   Pakistan—Punjab and Sindh  
 Comments: Belongs to subgenus *Gerbillus* Desmarest, 1804. Distribution details of Indian populations are given by Agrawal (2000) and Chakraborty and Agrawal (2000). Reviewed by Pavlinov et al. (1990). This species is considered distinct based on its unique morphological and chromosomal characteristics (Lay and Nadler 1975)
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**98. *Gerbillus aquilus* Schlitter and Stezer, 1972**1972. *Gerbillus aquilus* Schlitter and Stezer, Proc. Biol. Soc. Washington, 86:167

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**Swarthy Gerbil**

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Type locality:	60 km W of Kerman, Iran
Synonyms:	None
Subspecies:	None
Distribution:	<i>Gerbillus aquilus</i> Schlitter and Stezer, 1972 Afghanistan—Farah, Helmand and Kandahar Provinces Pakistan—Balochistan
Comments:	Belongs to subgenus <i>Gerbillus</i> Desmarest, 1804. Lay and Nadler (1975) and Lay (1983) treated <i>Gerbillus aquilus</i> Schlitter and Stezer, 1972 separate from <i>Gerbillus cheesmani</i> Thomas, 1919, but Corbet and Hill (1992) considered it as a subspecies of the latter

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**Genus *Meriones* Illiger, 1811****Jirds, Sand Rats**

Represented by four species in South Asia (Corbet and Hill 1992). Four subgenera are recognized (Pavlinov 2008), while Ellerman (1961) and Pavlinov et al. (1990) included all species under three subgenera, namely, *Cheliones* Thomas, 1919, *Parameriones* Heptner, 1937, and *Pallasiomys* Heptner, 1933. The genus *Meriones* Illiger, 1811 was reviewed by Chaworth-Musters and Ellerman (1947), Ellerman and Morrison-Scott (1951), Corbet (1978), Pavlinov et al. (1990), and Pavlinov (2008).

**99. *Meriones meridianus* (Pallas, 1773)**1773. *Mus meridianus* Pallas, Reise Russ. Reichs, 2:702

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**Mid-day Gerbil (Mid-day Jird)**

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Type locality:	SE Russia, Astrakhanskaya Oblast, Dosang
Synonyms:	<i>Mus meridianus</i> Pallas, 1773
Subspecies:	None
Distribution:	<i>Meriones meridianus</i> (Pallas, 1773) Afghanistan—Konduz Province
Comments:	Belongs to subgenus <i>Pallasiomys</i> Heptner, 1933. Reviewed by Pavlinov et al. (1990)

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**100. *Meriones libycus* Lichtenstein, 1823**1823. *Meriones libycus* Lichtenstein, Verz. Doubl. Zool. Mus. Univ. Berlin, 5

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**Libyan Jird**

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Type locality:	Near Alexandria, Egypt
Synonyms:	<i>Gerbillus erythrourus</i> Gray, 1842 <i>Meriones libycus erythrourus</i> (Gray, 1842) <i>Meriones afghanus</i> Pavlinov and Rossolimo, 1987
Subspecies:	None

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## Libyan Jird

- 
- Distribution: *Meriones libycus* Lichtenstein, 1823  
Afghanistan—Kandahar, Nangarhar, Paktika and Zabol Provinces  
Pakistan—Balochistan
- Comments: Belongs to subgenus *Pallasiomys* Heptner, 1933. Ellerman (1961) listed one subspecies *Meriones libycus erythrourus* (Gray, 1842)—the Afghan Jird, from South Asia. Corbet and Hill (1992) synonymized *Gerbillus erythrourus* Gray, 1842 with *Merioneslibycus* Lichtenstein, 1823. Reviewed by Hassinger (1973)
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**101. *Meriones crassus* Sundevall, 1842**1842. *Meriones crassus* Sundevall, K. Svenska Vetensk. Akad. Handl., Ser 3:233

## Sundevall's Jird

- 
- Type locality: Ain Musa, Sinai, Egypt
- Synonyms: *Gerbillus swinhoei* Scully, 1881  
*Meriones crassus swinhoei* (Scully, 1881)
- Subspecies: *Meriones crassus crassus* Sundevall, 1842
- Distribution: *Meriones crassus crassus* Sundevall, 1842  
Afghanistan—Farah, Helmand, Kandahar, and Nimruz Provinces  
Pakistan—Balochistan and Khyber Pakhtunkhwa
- Comments: Belongs to subgenus *Pallasiomys* Heptner, 1933. Ellerman and Morrison-Scott (1951) listed *Meriones crassus swinhoei* (Scully, 1881) as occurring in South Asia. Corbet and Hill (1992) synonymized the taxon *swinhoei* Scully, 1881 with *Meriones crassus* Sundevall, 1842 following observations made by Koffler (1972). Reviewed by Hassinger (1973), Corbet (1978), and Pavlinov et al. (1990)
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**102. *Meriones hurrianae* (Jerdon, 1867)**1867. *Gerbillus hurrianae* Jerdon, Mamm. India, 186

## Indian Desert Gerbil (Indian Desert Jird)

- 
- Type locality: Hissar, Haryana, India
- Synonyms: *Gerbillus hurrianae* Jerdon, 1867  
*Cheliones hurrianae collinus* Thomas, 1919
- Subspecies: None
- Distribution: *Meriones hurrianae* (Jerdon, 1867)  
India—Gujarat, Haryana and Rajasthan  
Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab and Sindh
- Comments: Belongs to subgenus *Cheliones* Thomas, 1919. Reviewed by Pavlinov et al. (1990), Roberts (1997), Agrawal (2000), and Chakraborty and Agrawal (2000). Hassinger (1973) opines that records of this species from Qalat [as Kelat-e-Ghilzai between Ghazni and Kandahar by Thomas (1919)] in Afghanistan, are probably erroneous
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**103. *Meriones persicus* (Blanford, 1875)**1875. *Gerbillus persicus* Blanford, Ann. Mag. Nat. Hist., (4)16:312

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**Persian Jird**

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- Type locality: Kohrud, 150 miles N of Isfahan, Iran  
 Synonyms: *Gerbillus persicus* Blanford, 1875  
 Subspecies: *Meriones persicus persicus* Blanford, 1875  
*Meriones persicus baptistae* Thomas, 1920  
 Distribution: *Meriones persicus persicus* Blanford, 1875  
 Afghanistan—Farah, Ghazni, Helmand, Herat, Kabul, Kandahar,  
 Khowst, Laghman, Lowgar, Nangarhar, Paktiya, Paktika, Vardak, and  
 Zabol Provinces  
 Pakistan—Balochistan  
*Meriones persicus baptistae* Thomas, 1920  
 Pakistan—Balochistan  
 Comments: Belongs to subgenus *Parameriones* Heptner, 1937. Reviewed by Hassinger  
 (1973) and Pavlinov et al. (1990). Roberts (1997) reviewed the Pakistan  
 population
- 

**104. *Meriones zarudnyi* Heptner, 1937**1937. *Meriones zarudnyi* Heptner, Bull. Soc. Nat. Moscou, Biol. 46:189, 191

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**Zarudny's Jird**

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- Type locality: Kushka, Afghan Frontier of Russian Turkmenistan  
 Synonyms: *Meriones crassus zarudnyi* Heptner, 1937  
 Subspecies: None  
 Distribution: *Meriones zarudnyi* Heptner, 1937  
 Afghanistan—Faryab Province  
 Comments: Earlier included under *Meriones crassus* Sundevall, 1842 (Ellerman and  
 Morrison-Scott 1951), presently considered distinct (Pavlinov and  
 Rossolimo 1987). This taxon has been reviewed by Corbet (1978) and  
 Pavlinov et al. (1990)
- 

**Genus *Rhombomys* Wagner, 1841****Great Gerbil**

Represented by a single species in South Asia (Corbet and Hill 1992).

**105. *Rhombomys opimus* (Lichtenstein, 1823)**1823. *Meriones opimus* Lichtenstein, Naturh. Abh. Eversmann's Reise, 122

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**Great Gerbil**

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- Type locality: Between Orenburg and Bukhara, Uzbekistan  
 Synonyms: *Meriones opimus* Lichtenstein, 1823  
 Subspecies: None
- 

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## Great Gerbil

- Distribution: *Rhombomys opimus* (Lichtenstein, 1823)  
 Afghanistan—Badghis, Balkh, Faryab, Heart, Jowzjan, Konduz and Takhar Provinces  
 Pakistan—Balochistan
- Comments: Corbet and Hill (1992) inform that it occurs along the western border of Pakistan and also provide in brief the characteristic features of the genus. This taxon has been reviewed by Hassinger (1973), Pavlinov et al. (1990), Qumsiyeh and Schlitter (1991), Roberts (1997), and Pavlinov (2008)

**Genus *Tatera* Lataste, 1882****Large Gerbils**

Represented by a single species in South Asia (Corbet and Hill 1992).

**106. *Tatera indica* (Hardwicke, 1807)**

1807. *Dipus indicus* Hardwicke, Trans. Linn. Soc. London, 8:279

## Indian Gerbil (Antelope Rat)

- Type locality: Between Benaras (Varnasi) and Hardwar, Uttar Pradesh, India
- Synonyms: *Dipus indicus* Hardwicke, 1807  
*Gerbillus otarius* Cuvier, 1838  
*Gerbillus cuvieri* Waterhouse, 1838  
*Gerbillus hardwickei* Gray, 1843  
*Tatera indica hardwickei* (Gray, 1843)  
*Tatera ceylonica* Wroughton, 1906  
*Tatera indica ceylonica* Wroughton, 1906  
*Tatera sherrini* Wroughton, 1917  
*Tatera dunni* Wroughton, 1917
- Subspecies: *Tatera indica indica* (Hardwicke, 1807)  
*Tatera indica cuvieri* (Waterhouse, 1838)
- Distribution: *Tatera indica indica* (Hardwicke, 1807)  
 Afghanistan—Herat, Kandahar, Laghman, and Nangarhar Provinces  
 Bangladesh—Dhaka  
 India—Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand, and West Bengal  
 Nepal—Western Nepal  
 Pakistan—Khyber Pakhtunkhwa and Sindh  
*Tatera indica cuvieri* (Waterhouse, 1838)  
 India—Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu  
 Sri Lanka—North Central, North Western, Sabaragamuwa, Southern, and Western Provinces

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**Indian Gerbil (Antelope Rat)**

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Comments: Ellerman (1961) listed four subspecies *Tatera indica indica* (Hardwicke, 1807), *Tatera indica hardwickei* (Gray, 1843), *Tatera indica ceylonica* (Wroughton, 1906), and *Tatera indica cuvieri* (Waterhouse, 1838) from South Asia. Agrawal and Chakraborty (1981), Bates (1988), Corbet and Hill (1992), and Agrawal (2000) list only two valid subspecies listed above. This taxon has been reviewed by Rao et al. (1968), Hassinger (1973), Yosida (1981), Qumsiyeh and Schlitter (1991), Roberts (1997), Agrawal (2000), Chakraborty and Agrawal (2000), and Pavlinov (2008)

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**Subfamily Murinae Illiger, 1811****Genus *Apodemus* Kaup, 1829****Palaearctic Wood Mice**

Currently there are five species recognized from South Asia. Musser et al. (1996) recognized three groups under the genus *Apodemus* Kaup, 1829 namely, *Apodemus* group, *Sylvaemus* group, and *Argentatus* group confirmed by Serizawa et al. (2000), who replaced the term *Sylvaemus* to *Sylvaticus* and added a fourth group *Gurkha* group to accommodate *Apodemus gurkha*. Earlier, all the forms were referred under two species, namely, *Apodemus sylvaticus* (Linnaeus, 1758) and *Apodemus flavicollis* (Melchoir, 1834) (Ellerman 1961). However, both the species are European forms (Filippucci et al. 2002) and are thus not valid for South Asia. One species is endemic to Nepal (Gemmeke and Niethammer 1982).

**107. *Apodemus draco* (Barrett-Hamilton, 1900)**

1900. *Mus sylvaticus draco* Barrett-Hamilton, Proc. Zool. Soc. London, 1900:418

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**South China Wood Mouse (South China Field Mouse)**

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Type locality: Kuantan, NW Fujian, S China

Synonyms: *Mus sylvaticus draco* Barrett-Hamilton, 1900  
*Apodemus sylvaticus draco* (Barrett-Hamilton, 1900)  
*Apodemus speciosus orestes* Thomas, 1911  
*Apodemus sylvaticus orestes* Thomas, 1911

Subspecies: None

Distribution: *Apodemus draco* (Barrett-Hamilton, 1900)  
 India—Arunachal Pradesh and Nagaland

Comments: Belongs to *Apodemus* group. Though treated as distinct (Ellerman 1941), Allen (1940), Ellerman and Morrison-Scott (1951), and Ellerman (1961) treated this taxon as a subspecies of *Apodemus sylvaticus* (Linnaeus, 1758). However, Corbet (1978), Xia (1985), and Corbet and Hill (1991, 1992) treated it as distinct species. Ellerman (1961) treated *Apodemus orestes* (Thomas, 1911) as a subspecies of *Apodemus sylvaticus* (Linnaeus, 1758) that was treated by Corbet (1978), Xia (1984, 1985), and Feng et al. (1986) as a subspecies of *Apodemus draco* (Musser et al. 1996). Although Corbet and Hill (1992), Agrawal (2000), and Jiang and Wang (2000) treated *Apodemus orestes* distinct, we maintain the status quo following Musser et al. (1996), Pan-Wen et al. (2004), and Musser and Carleton (2005)

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**108. *Apodemus pallipes* (Barrett-Hamilton, 1900)**1900. *Mus sylvaticus pallipes* Barrett-Hamilton, Proc. Zool. Soc., 417

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**Himalayan Field Mouse (Ward's Field Mouse)**

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- Type locality: Surhad Wakhan, Pamir (Russian Turkestan)
- Synonyms: *Mus sylvaticus pallipes* Barrett-Hamilton, 1900  
*Apodemus sylvaticus pallipes* Barrett-Hamilton, 1900  
*Micromys sylvaticus pentax* Wroughton, 1908  
*Apodemus sylvaticus pentax* (Wroughton, 1908)  
*Micromys sylvaticus wardi* Wroughton, 1908
- Subspecies: None
- Distribution: *Apodemus pallipes* (Barrett-Hamilton, 1900)  
 Afghanistan—Badakhshan, Herat, Kabul, and Konar Provinces  
 India—Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), and Uttarakhand  
 Nepal—Central Nepal  
 Pakistan—Khyber Pakhtunkhwa and Punjab
- Comments: Belongs to *Sylvaemus* group. Some treated this taxon as a subspecies of *Apodemus sylvaticus* (Linnaeus, 1758) (Ellerman 1941; Ellerman and Morrison-Scott 1951), while others synonymized it with the same taxon (Corbet 1978; Pavlinov and Rossolimo 1998; Pavlinov et al. 1995). Presently considered distinct following Mezhzherin (1997), Suzuki et al. (2003), and Musser and Carleton (2005) and includes the taxa *wardi* and *pentax*
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**109. *Apodemus latronum* Thomas, 1911**1911. *Apodemus speciosus latronum* Thomas, Abstr. Proc. Zool. Soc. London, 100:49, Proc. Zool. Soc. London, 1912:137

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**Sichuan Field Mouse (Large-eared field Mouse)**

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- Type locality: Tatsienlu, W Szechwan, China
- Synonyms: *Apodemus speciosus latronum* Thomas, 1911  
*Apodemus flavicollis latronum* Thomas, 1911
- Subspecies: None
- Distribution: *Apodemus latronum* Thomas, 1911  
 India—Arunachal Pradesh
- Comments: Belongs to *Apodemus* group. Ellerman and Morrison-Scott (1951) and Ellerman (1961) considered it as a subspecies of *Apodemus flavicollis* (Melchior, 1834). Feng et al. (1986) considered it as a subspecies of *Apodemus draco* (Barrett-Hamilton, 1900). Corbet (1978), Corbet and Hill (1992), Musser et al. (1996), Liu et al. (2004), and Musser and Carleton (2005) considered it as a distinct species
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**110. *Apodemus rusiges* Miller, 1913**1913. *Apodemus flavicollis rusiges* Miller, Proc. Biol. Soc. Washington, 26:81

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**Kashmir Field Mouse**

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Type locality:	Central Kashmir
Synonyms:	<i>Apodemus flavicollis rusiges</i> Miller, 1913
Subspecies:	None
Distribution:	Endemic to India <i>Apodemus rusiges</i> Miller, 1913 Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), and Punjab
Comments:	Belongs to <i>Apodemus</i> group. Ellerman and Morrison-Scott (1951) and Ellerman (1961) considered this taxon as a subspecies of <i>Apodemus flavicollis</i> (Melchoir, 1834), while Wroughton (1920) and Corbet (1978) considered it under <i>A. sylvaticus</i> (Linnaeus, 1758). Agrawal (2000) considered this taxon as synonym of <i>Apodemus sylvaticus wardi</i> (Wroughton, 1908). However, <i>Apodemus sylvaticus</i> (Linnaeus, 1758) does not occur in South Asia and the taxon <i>wardi</i> is presently synonymized with <i>Apodemus pallipes</i> (Barrett-Hamilton, 1900). Based on its morphological characters, it is considered distinct (Wroughton 1908b; Musser and Carleton 2005)

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**111. *Apodemus gurkha* Thomas, 1924**1924. *Apodemus gurkha* Thomas, J. Bombay Nat. Hist. Soc., 29(4):888

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**Himalayan Wood Mouse (Himalayan Field Mouse)**

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Type locality:	Laprak, Gorkha, Nepal
Synonyms:	<i>Apodemus flavicollis gurkha</i> (Thomas, 1924)
Subspecies:	None
Distribution:	Endemic to Nepal <i>Apodemus gurkha</i> Thomas, 1924 Central Nepal
Comments:	Belongs to <i>Apodemus</i> group. Ellerman and Morrison-Scott (1951) and Ellerman (1949, 1961) considered it as a subspecies of <i>Apodemus flavicollis</i> (Melchior, 1834). Martens and Niethammer (1972), Zimmermann (1962), Corbet (1978), Corbet and Hill (1992), Musser and Carleton (1993), Musser et al. (1996), and Agrawal (2000) considered it a distinct species

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**Genus *Bandicota* Gray, 1873****Bandicoot-rats**

Currently there are two species recognized from South Asia.

**112. *Bandicota indica* (Bechstein, 1800)**1800. *Mus indicus* Bechstein, In Pennant, Allgemeine Ueber Vierf. Thiere., 2:497

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**Greater Bandicoot Rat (Large Bandicoot-rat)**

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- Type locality: Puducherry, India
- Synonyms: *Mus indicus* Bechstein, 1800  
*Mus bandicota* Bechstein, 1800  
*Mus malabarica* Shaw, 1801  
*Mus perchal* Shaw, 1801  
*Mus giganteus* Hardwicke, 1804  
*Mus (Rattus) nemorivagus* Hodgson, 1836  
*Mus macropus* Hodgson, 1845  
*Mus (Nesokia) elliotanus* Anderson, 1878  
*Bandicota maxima* Pradhan, Mondal, Bhagwat and Agrawal, 1993
- Subspecies: *Bandicota indica indica* (Bechstein, 1800)  
*Bandicota indica nemorivaga* (Hodgson, 1836)  
*Bandicota indica malabarica* (Shaw, 1801)
- Distribution: *Bandicota indica indica* (Bechstein, 1800)  
India—Andhra Pradesh, Assam, Bihar, Delhi, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, and Uttarakhand  
Sri Lanka—Central, North Eastern, Sabaragamuwa, Southern, and Western Provinces  
*Bandicota indica nemorivaga* (Hodgson, 1836)  
Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
Bhutan—Central, East, and South Bhutan (only in foothill lowlands)  
India—Assam, Manipur, Meghalaya, and West Bengal  
Nepal—Western Nepal  
*Bandicota indica malabarica* (Shaw, 1801)  
Endemic to India—Karnataka and Kerala
- Comments: Ellerman (1961) listed three subspecies. Chakraborty and Chakraborty (1991) and Agrawal (2000) recognize two subspecies, namely—*Bandicota indica indica* (Bechstein, 1800) and *Bandicota indica nemorivaga* (Hodgson, 1836). The former subspecies is widespread including most of India and Sri Lanka, while the latter subspecies is restricted in distribution to Nepal, Bangladesh, and Northeast India. Pradhan et al. (1993) while revising genus *Bandicota*, reported a third subspecies, *Bandicota indica malabarica* (Shaw, 1801), from the Western Ghats that was synonymized with the present taxon by Musser and Carleton (2005). Pradhan et al. (1989) proposed the population of the large sized bandicoot rats from India as *Bandicota gigantea* non Hardwicke, which was not accepted by Corbet and Hill (1992). Later detailed revisionary studies of the genus *Bandicota* reported by Pradhan et al. (1993) resulted in describing a new species, *Bandicota maxima* Pradhan et al., 1993. But, while raising some doubts, Agrawal (2000) again tentatively kept *Bandicota maxima* Pradhan et al., 1993 in *Bandicota indica* (Bechstein, 1800). However, Srinivasulu and Pradhan (2003) treated it as a valid species. Following Chakraborty and Chakraborty (1991), Agrawal (2000), and Musser and Carleton (2005), the taxa *gigantea* Hardwicke, 1804 and *maxima* Pradhan et al., 1993 are synonymized with *Bandicota indica* (Bechstein, 1800)
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**113. *Bandicota bengalensis* (Gray and Hardwicke, 1833)**1833. *Arvicola bengalensis* Gray (in Hardwicke, 1830–35), Illustr. Indian Zool., 2:pl. 21

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**Lesser Bandicoot-rat (Indian Mole-rat)**

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- Type locality: Bengal, India
- Synonyms: *Arvicola bengalensis* Gray and Hardwicke, 1833  
*Mus kok* Gray, 1837  
*Gunomys kok* (Gray, 1837)  
*Mus (Neotoma) providens* Elliot, 1839  
*Mus dubius* Kelaart, 1850  
*Mus deccanensis* Tytler, 1854  
*Mus tarayensis* Horsfield, 1855  
*Mus plurimammis* Horsfield, 1855  
*Mus morungensis* Horsfield, 1855  
*Mus (Nesokia) blythianus* Anderson, 1878  
*Mus (Nesokia) barclayanus* Anderson, 1878  
*Nesokia gracilis* Nehring, 1902  
*Gunomys varius* Thomas, 1907  
*Gunomys varillus* Thomas, 1907  
*Gunomys lordi* Wroughton, 1908  
*Gunomys sindhicus* Wroughton, 1908  
*Gunomys kok insularis* Phillips, 1936
- Subspecies: *Bandicota bengalensis bengalensis* (Gray and Hardwicke, 1833)  
*Bandicota bengalensis wardi* (Wroughton, 1908)
- Distribution: *Bandicota bengalensis bengalensis* (Gray and Hardwicke, 1833)  
Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
Bhutan—Central, East, and West Bhutan (only in foothill lowlands)  
India—Throughout  
Nepal—Throughout  
Pakistan—Throughout  
Sri Lanka—Throughout  
*Bandicota bengalensis wardi* (Wroughton, 1908)  
India—Himachal Pradesh and Jammu and Kashmir
- Comments: Ellerman and Morrison-Scott (1951) and Ellerman (1961) listed five subspecies, namely, *Bandicota bengalensis bengalensis* (Gray and Hardwicke, 1833), *Bandicota bengalensis kok* (Gray, 1837), *Bandicota bengalensis gracilis* (Nehring, 1902), *Bandicota bengalensis varius* (Thomas, 1907), and *Bandicota bengalensis wardi* (Wroughton, 1908). Corbet and Hill (1992) quoting Agrawal and Chakraborty (1976) included three subspecies from the Indo-Malayan region. For South Asia, only two subspecies, namely—*Bandicota bengalensis bengalensis* (Gray, 1835) and *Bandicota bengalensis wardi* (Wroughton, 1908) are valid. The latter subspecies is restricted in distribution (Agrawal 2000). Pradhan (1979) has doubted the inclusion of *kok* Gray, 1837 and *lordi* Wroughton, 1908 populations in *Bandicota bengalensis* (Gray and Hardwicke, 1833) on the basis of morphological, osteo-morphological, and biochemical studies. This is a much studied taxon (Agrawal and Chakraborty 1976; Sharma and Raman 1971, 1973; Gadi and Sharma 1983; Dubey and Raman 1992; Prakash et al. 1995a, b; Chakraborty and Agrawal 2000; Agrawal 2000)
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## Genus *Berylmys* Ellerman, 1947

### Rats

Earlier included as a subgenus under the genus *Rattus* Fischer, 1803. Later, Musser and Newcomb (1983) revised the species belonging to subgenera of *Rattus* Fischer, 1803 and recognized *Berylmys* Ellerman, 1947, including four species, namely, *Berylmys manipulus* (Thomas, 1916), *Berylmys berdmorei* (Blyth, 1851), *Berylmys mackenziei* (Thomas, 1916), and *Berylmys bowersi* (Anderson, 1879), as a distinct genus from the Indo-Malayan region. Corbet and Hill (1992) and Agrawal (2000) also followed this scheme. Three species occur in South Asia.

#### 114. *Berylmys bowersi* (Anderson, 1879)

1879. *Mus bowersii* Anderson, Anat. Zool. Res. Yunnan, 304

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##### Bower's *Berylmys* (Bower's Rat)

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Type locality:	Hotha, Kakhya Hills, Yunnan, China
Synonyms:	<i>Mus bowersii</i> Anderson, 1879 <i>Rattus bowersi</i> (Anderson, 1879)
Subspecies:	<i>Berylmys bowersi bowersi</i> (Anderson, 1879)
Distribution:	<i>Berylmys bowersi bowersi</i> (Anderson, 1879) India—Arunachal Pradesh, Manipur, Meghalaya, Mizoram, and Nagaland
Comments:	Ellerman (1961) treated this species as <i>Rattus</i> ( <i>Stenomys</i> ) <i>bowersi</i> (Anderson, 1879) and included three subspecies, namely <i>Rattus bowersi bowersi</i> (Anderson, 1879), <i>Rattus bowersi mackenziei</i> (Thomas, 1916), and <i>Rattus bowersi feae</i> (Thomas, 1916). Later, Musser and Newcomb (1983) revised the taxa and upgraded them to species level

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#### 115. *Berylmys mackenziei* (Thomas, 1916)

1916. *Epimys mackenziei* Thomas, J. Bombay Nat. Hist. Soc., 24(3):410

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##### Kenneth's White-toothed Rat (Mackenzie's Rat)

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Type locality:	50 miles W of Kindat, Chin Hills, Burma (now Myanmar)
Synonyms:	<i>Epimys mackenziei</i> Thomas, 1916 <i>Rattus wellsi</i> Thomas, 1921
Subspecies:	None
Distribution:	<i>Berylmys mackenziei</i> (Thomas, 1916) India—Arunachal Pradesh, Manipur, Meghalaya, Mizoram and Nagaland
Comments:	Ellerman (1961) treated this as a subspecies of <i>Rattus</i> ( <i>Stenomys</i> ) <i>bowersi</i> (Anderson, 1879). Later, following revision by Musser and Newcomb (1983) it was upgraded to species status (Corbet and Hill 1992; Agrawal 2000)

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**116. *Berymys manipulus* (Thomas, 1916)**1916. *Epimys manipulus* Thomas, J. Bombay Nat. Hist. Soc., 24(3):413

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**Manipur White-toothed Rat (Manipur Rat)**

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Type locality:	Kampat, 20 miles W of Kindat, Kabaw Valley, C. Myanmar
Synonyms:	<i>Epimys manipulus</i> Thomas, 1916 <i>Rattus manipulus kekrimus</i> Roonwal, 1948
Subspecies:	<i>Berymys manipulus manipulus</i> (Thomas, 1916)
Distribution:	<i>Berymys manipulus manipulus</i> (Thomas, 1916) India—Assam, Manipur, and Nagaland
Comments:	Ellerman (1961) and Corbet and Hill (1992) recognized two subspecies, namely, <i>Rattus manipulus manipulus</i> (Thomas, 1916) and <i>Rattus manipulus kekrimus</i> Roonwal, 1948. Agrawal (2000) synonymized the latter with the former based on the marked morphometric and morphological similarities between the two taxa

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**Genus *Chiropodomys* Peters, 1868****Tree-Mouse**

Only one species occurs in South Asia. See Musser (1979) for generic revision.

**117. *Chiropodomys gliroides* (Blyth, 1856)**1856. *Mus gliroides* Blyth, J. Asiat. Soc. Beng., 24:721

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**Pencil-tailed Tree Mouse (Pencil-tailed Tree-mouse)**

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Type locality:	Cherrapunji, Khasi Hills, Meghalaya, India
Synonyms:	<i>Mus gliroides</i> Blyth, 1856 <i>Mus peguensis</i> Blyth, 1859
Subspecies:	<i>Chiropodomys gliroides gliroides</i> (Blyth, 1856)
Distribution:	<i>Chiropodomys gliroides gliroides</i> (Blyth, 1856) India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, and Nagaland
Comments:	Of the five subspecies recognized, the nominate form occurs in the region (Ellerman 1961; Musser 1979; Agrawal 2000)

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**Genus *Cremnomys* Wroughton, 1912****Rats**

Earlier included under subgenus *Rattus* Fischer, 1803 (Ellerman 1941), later recognized as a subgenus of genus *Rattus* Fischer, 1803 (Ellerman and Morrison-Scott 1951; Ellerman 1961), presently upgraded to generic status (Misonne 1969; Raman and Sharma 1977; Gadi and Sharma 1983; Agrawal, 2000; Musser and Carleton 2005). Currently there are two species recognized from South Asia. One species each is endemic to South Asia and India. Earlier included the taxon *blanfordi* Thomas, 1881.

**118. *Cremnomys cutchicus* Wroughton, 1912**1912. *Cremnomys cutchicus* Wroughton, J. Bombay Nat. Hist., 21:340

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**Cutch *Cremnomys* (Cutch Rock Rat)**

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Type locality: Dhonsa, Kutch, Gujarat, India

Synonyms: *Rattus cutchicus* (Wroughton, 1912)  
*Cremnomys medius* Thomas, 1916  
*Rattus cutchicus medius* (Thomas, 1916)  
*Cremnomys medius caenosa* Thomas, 1916  
*Cremnomys medius caenosus* Thomas, 1916  
*Cremnomys medius rajput* Thomas, 1916  
*Rattus cutchicus rajput* (Thomas, 1916)  
*Cremnomys australis* Thomas, 1916  
*Rattus cutchicus australis* (Thomas, 1916)  
*Cremnomys australis siva* Thomas 1916  
*Rattus cutchicus siva* (Thomas, 1916)  
*Cremnomys cutchicus leechi* Harrison, 1974

Subspecies: None

Distribution: Endemic to India

*Cremnomys cutchicus* Wroughton, 1912

Comments: Ellerman (1961) included this under subgenus *Cremnomys* Wroughton, 1912 and recognized five subspecies, namely—*Rattus cutchicus cutchicus* (Wroughton, 1912), *Rattus cutchicus siva* (Thomas, 1916), *Rattus cutchicus australis* (Thomas, 1916), *Rattus cutchicus medius* (Thomas, 1916), and *Rattus cutchicus rajput* (Thomas, 1916). Corbet and Hill (1992) list *Cremnomys medius caenosus* Thomas, 1916, *Cremnomys medius rajput* Thomas, 1916, *Cremnomys australis siva* Thomas, 1916 and *Cremnomys cutchicus leechi* Harrison, 1974. Agrawal (2000) considered all the subspecies listed by Ellerman (1961) as synonyms under *Cremnomys cutchicus* Wroughton, 1912 based on studies carried out on the specimens present with Zoological Survey of India and Bombay Natural History Society. This species has been studied and reviewed by Raman and Sharma (1977), Sharma and Gadi (1977), Gadi and Sharma (1983), Rishi and Puri (1984), Sobti and Gill (1984), Corbet and Hill (1992), Prakash et al. (1995a, b), and Agrawal (2000)

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**119. *Cremnomys elvira* (Ellerman, 1947)**1947. *Rattus (Cremnomys) elvira* Ellerman, Ann. Mag. Nat. Hist., (11)13:207

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**Elvira *Cremnomys* (Large Rock-rat)**

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Type locality: Kurumbapatti, Salem dist., Tamil Nadu, India

Synonyms: *Rattus (Cremnomys) elvira* Ellerman, 1947

Subspecies: None

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**Elvira Cremnomys (Large Rock-rat)**

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- Distribution: Endemic to India  
*Cremnomys elvira* (Ellerman, 1947)  
Tamil Nadu (known only from type locality in Eastern Ghats)
- Comments: Ellerman (1961) treated it under subgenus *Cremnomys* Wroughton, 1912. Musser and Carleton (1993) remark that this species is “still represented by a few specimens in South Asia of the type locality”. This species has been reviewed by Agrawal (2000)
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**Genus *Dacnomys* Thomas, 1916****Large-toothed Rat**

Monotypic genus characterized by unusually large maxillary tooth rows.

**120. *Dacnomys millardi* Thomas, 1916**

1916. *Dacnomys millardi* Thomas, J. Bombay Nat. Hist. Soc., 24(3):405

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**Millard's Rat**

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- Type locality: Gopaldhara, near Darjeeling, West Bengal, India
- Synonyms: *Dacnomys wroughtoni* Thomas, 1922  
*Dacnomys millardi wroughtoni* Thomas, 1922
- Subspecies: None
- Distribution: *Dacnomys millardi* Thomas, 1916  
India—Arunachal Pradesh, Nagaland, and West Bengal  
Nepal—Eastern Nepal
- Comments: Ellerman (1961) and Agrawal (2000) included two subspecies under this species. Presently, no subspecies is recognized (Musser and Carleton 2005; Steppan et al. 2005). Osgood (1932), Musser (1981), Corbet and Hill (1992) and Agrawal (2000) reviewed this genus in detail. May possibly also occur in Bhutan
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**Genus *Diomys* Thomas, 1917****Crump's Mouse**

Monotypic genus characterized by small body size and pro-odont incisors.

**121. *Diomys crumpi* Thomas, 1917**

1917. *Diomys crumpi* Thomas, J. Bombay Nat. Hist. Soc., 25:204

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**Crump's Mouse**

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- Type locality: Mt. Paresnath, Hazaribagh dist., Bihar (presently in Jharkhand), India
- Synonyms: None
- Subspecies: None
- Distribution: *Diomys crumpi* Thomas, 1917  
India—Jharkhand and Manipur  
Nepal—Western Nepal
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**Crump's Mouse**

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Comments: Ellerman (1961) mentions about a series of skulls from Frost Collection, Manipur. Musser and Newcomb (1983) report its occurrence from North Myanmar. The description of the species is based on a broken skull mismatched with a specimen of *Millardia meltada* from Parasnath Hills, Bihar. The species has not subsequently been found at the type locality in Bihar and it remains doubtful if the type locality was correctly recorded (Corbet and Hill 1992). This species has been reviewed by Ingles et al. (1980), Musser and Newcomb (1983), Corbet and Hill (1992), and Agrawal (2000)

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**Genus *Golunda* Gray, 1837****Bush-Rats**

Monotypic genus.

**122. *Golunda ellioti* Gray, 1837**1837. *Golunda ellioti* Gray, Charlesworth's Mag. Nat. Hist., 1:586

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**Indian Bush-Rat**

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Type locality: Dharwar, Karnataka, India

Synonyms: *Mus hirsutus* Elliot 1839  
*Mus myothrix* Hodgson, 1845  
*Golunda ellioti myothrix* (Hodgson, 1845)  
*Golunda coffaeus* Kelaart, 1850  
*Mus newara* Kelaart, 1850  
*Mus nuwara* Kelaart, 1850  
*Pelomys watsoni* Blanford, 1876  
*Golunda ellioti watsoni* (Blanford, 1876)  
*Golunda newara* Blanford, 1891  
*Golunda ellioti paupera* Thomas, 1923  
*Golunda ellioti gujerati* Thomas, 1923  
*Golunda ellioti bombax* Thomas, 1923  
*Golunda ellioti coraginis* Thomas, 1923  
*Golunda ellioti coenosa* Thomas, 1923  
*Golunda ellioti limitaris* Thomas, 1923

Subspecies: *Golunda ellioti ellioti* Gray, 1837  
*Golunda ellioti nuwara* (Kelaart, 1850)

Distribution: *Golunda ellioti ellioti* Gray, 1837  
 Bangladesh—Bogra, Dinajpur, and Rajshahi  
 Bhutan—Central, East, and West Bhutan (only in foothills)  
 India—Andhra Pradesh, Assam, Chattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttarakhand, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh  
*Golunda ellioti nuwara* (Kelaart, 1850)  
 Endemic to Sri Lanka—Central, North Central, Southern, and Western Provinces

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**Indian Bush-Rat**

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Comments: Ellerman (1961) listed seven subspecies, namely, *Golunda ellioti ellioti* Gray, 1837, *Golunda ellioti gujerati* Thomas, 1923, *Golunda ellioti paupera* Thomas, 1923, *Golunda ellioti nuwara* (Kelaart, 1850), *Golunda ellioti myothrix* (Hodgson, 1845), *Golunda ellioti coenosa* Thomas, 1923 and *Golunda ellioti watsoni* (Blanford, 1876). Ellerman (1961) also opined that “apart from *nuwara*, the races of this species are doubtful and others retained might just as well be placed in the synonymy of the typical form”. Corbet and Hill (1992) listed three subspecies, namely, *Golunda ellioti ellioti* Gray, 1837, *Golunda ellioti gujerati* Thomas, 1923, and *Golunda ellioti nuwara* (Kelaart, 1850), based on the review by Agrawal and Chakraborty (1982). However, Agrawal (2000) synonymized *Golunda ellioti gujerati* Thomas, 1923 with the nominate form. This species has been studied by Prakash et al. (1995a, b), Chandrasekar-Rao and Sunquist (1996), Chakraborty and Agrawal (2000) and Agrawal (2000). In Nepal and Bhutan this species occurs in the terai region and is uncommon

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**Genus *Hadromys* Thomas, 1911****Bush Rat**

Monotypic genus characterized by concave anterior border of the zygomatic plate and broad upper incisors.

**123. *Hadromys humei* (Thomas, 1886)**

1886. *Mus humei* Thomas, Proc. Zool. Soc. Lond., 1886:63

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**Hume's Rat (Manipur Bush Rat)**

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Type locality: Moirang, Manipur, India  
 Synonyms: *Mus humei* Thomas, 1886  
 Subspecies: None  
 Distribution: Endemic to India  
*Hadromys humei* (Thomas, 1886)  
 Manipur and Assam  
 Comments: This taxon has been reviewed by Musser (1987)

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**Genus *Leopoldamys* Ellerman, 1947****Long-tailed Giant Rats**

Earlier included under the genus *Rattus* Fischer, 1803. *Leopoldamys* was erected and treated as a subgenus of *Rattus* by Ellerman (1947). However, Musser (1981) treated it as a distinct genus based on allozymic and morphological characters (Chan et al. 1979; Musser 1981; Musser and Newcomb 1983). Currently there are two species recognized from South Asia.

**124. *Leopoldamys edwardsi* (Thomas, 1882)**1882. *Mus edwardsi* Thomas, Proc. Zool. Soc. Lond., 1882:587

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**Edward's Rat**

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- Type locality: Kuantan (probably), Mountains of W Fujian, China
- Synonyms: *Mus edwardsi* Thomas, 1882  
*Epimys listeri* Thomas, 1916  
*Epimys listeri garonum* Thomas, 1921
- Subspecies: *Leopoldamys edwardsi edwardsi* (Thomas, 1882)
- Distribution: *Leopoldamys edwardsi edwardsi* (Thomas, 1882)  
India—Arunachal Pradesh, Assam, Meghalaya, Nagaland, and West Bengal
- Comments: Ellerman (1961) concluded that there is no significant variation in *listeri* Thomas, 1916 and *edwardsi* Thomas, 1882 and hence synonymized with the latter. Corbet and Hill (1992) recognize *Rattus listeri garonum* Thomas, 1921, while Agrawal (2000) synonymized it with the nominate race. Musser and Carleton (1993, 2005) consider the species is in need of taxonomic revision and that samples from Indochina may represent a different species from those from the Malay Peninsula and Sumatra. Probably may also occur in Bhutan
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**125. *Leopoldamys sabanus* (Thomas, 1887)**1887. *Mus sabanus* Thomas, Ann. Mag. Nat. Hist., (5)20:269

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**Long-tailed Giant Rat (Noisy Rat)**

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- Type locality: Gunung Kinabalu, Sabah (N. Borneo), Malaysia
- Synonyms: *Mus sabanus* Thomas, 1887 (many from its range in SE Asia)
- Subspecies: None
- Distribution: *Leopoldamys sabanus* (Thomas, 1887)  
Bangladesh—Chittagong
- Comments: *Leopoldamys sabanus* (Thomas, 1887) reported from Meghalaya is a misidentification of *Leopoldamys edwardsi* (Thomas, 1882), as such it does not occur in India (Musser 1981; Agrawal 2000). Not much is known about the exact distribution of this taxon in South Asia. This species may not occur in Bangladesh (S. U. Sarker pers. comm.) and the distribution record is in accordance with Musser and Carleton (1993) and Nowak (1999) (Srinivasulu and Pradhan 2003), which needs confirmation. The record from Arunachal Pradesh needs to be studied as it might represent the taxon *garonum* Thomas, 1921 (that has been synonymized with *Leopoldamys edwardsi* Thomas, 1882). The taxon *Leopoldamys sabanus* (Thomas, 1887) is provisionally considered to be present in South Asia pending taxonomic verification
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## Genus *Madromys* Wroughton, 1912

### Madras Rat

Monotypic genus endemic to South Asia. Ellerman (1961) opined that the forms belonging to taxon *blanfordi* Thomas, 1881 [that had been included under subgenus *Rattus* Fischer, 1803 (Ellerman 1941), later recognized as a subgenus of genus *Rattus* Fischer, 1803 (Ellerman and Morrison-Scott 1951)], are aberrant ones rather allied to *Cremnomys* Wroughton, 1919. Misonne (1969) and Corbet and Hill (1992), though retaining it in *Cremnomys* Wroughton, 1919, expressed that it could be distinct than the other two species included in this genus. Agrawal (2000) too expressed the same feelings and remarked that distinct generic status be given to *blanfordi* Thomas, 1881 as it varies on many counts from *cutchicus* Wroughton, 1912 and *elvira* Ellerman, 1947. Musser and Carleton (2005) accommodated *blanfordi* Thomas, 1881 in *Madromys* Sody, 1941. Includes one endemic species.

#### 126. *Madromys blanfordi* (Thomas, 1881)

1881. *Mus blanfordi* Thomas, Ann. Mag. Nat. Hist., (5):7:24

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#### Blanford's Rat (White-tailed Wood Rat)

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Type locality:	Kadapa (now Cuddapah), Madras (now Andhra Pradesh), India
Synonyms:	<i>Mus blanfordi</i> Thomas, 1881 <i>Rattus blanfordi</i> (Thomas, 1881) <i>Cremnomys blanfordi</i> (Thomas, 1881)
Subspecies:	None
Distribution:	Endemic to South Asia <i>Madromys blanfordi</i> (Thomas, 1881) Bangladesh—Khulna India—Andhra Pradesh, Goa, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, and West Bengal Sri Lanka—Eastern and Southern Provinces
Comments:	See comments under Genus <i>Madromys</i> Wroughton, 1912

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## Genus *Micromys* Dehne, 1841

### Pygmy Mouse

Monotypic genus characterized by small size and prehensile tail.

#### 127. *Micromys minutus* (Pallas, 1771)

1771. *Mus minutus* Pallas, Reise. Prov. Russ. Reichs., 1:454

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#### Harvest Mouse (Eurasian Harvest Mouse)

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Type locality:	Simbrisk (now Ulyanousk), Ulyanousk, Russia
Synonyms:	<i>Mus minutus</i> Pallas, 1771 <i>Mus erythrotis</i> Blyth, 1855 <i>Mus pygmaeus</i> Milne-Edwards, 1874
Subspecies:	<i>Micromys minutus erythrotis</i> (Blyth, 1855)

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Harvest Mouse (Eurasian Harvest Mouse)

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- Distribution: *Micromys minutus erythrotis* (Blyth, 1855)  
India—Arunachal Pradesh, Assam, Manipur, and Nagaland
- Comments: Wroughton (1908c), Ellerman (1961), and Agrawal (2000) recognize *Micromys minutus erythrotis* (Blyth, 1855) from India. Specimens from Asia are morphologically very distinct from European specimens (Mike Jordan, *pers. comm.*)
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**Genus *Millardia* Thomas, 1911****Soft-furred Rats**

Ellerman (1961) treated *Millardia* as a subgenus under *Rattus* Fischer, 1803. But based on its unique characters, it was raised to the generic level by Misonne (1969) and Agrawal (1970). Three species recognized from South Asia of which one species is endemic to India, while other two are endemic to South Asia.

**128. *Millardia meltada* (Gray, 1837)**1837. *Golunda meltada* Gray, Charlesworth's Mag. Nat. Hist., 1:586

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Soft-furred Metad

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- Type locality: Dharwar, S. Mahratta (now Karnataka), India
- Synonyms: *Golunda meltada* Gray, 1837  
*Rattus meltada meltada* (Gray, 1837)  
*Mus lanuginosus* Elliot, 1839  
*Mus comberi* Wroughton, 1907  
*Mus listoni* Wroughton, 1907  
*Millardia meltada pallidor* Ryley, 1914  
*Rattus meltada pallidor* (Ryley, 1914)  
*Millardia meltada dunni* Thomas, 1917  
*Millardia meltada singuri* Mandal and Ghosh, 1981
- Subspecies: None
- Distribution: Endemic to South Asia  
*Millardia meltada* (Gray, 1837)  
Bangladesh—Dinajpur, Khulna, Rajshahi  
India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal  
Nepal—Western Nepal  
Pakistan—Punjab and Sindh  
Sri Lanka—North Central, North Eastern, North Western, Southern, and Uva Provinces
- Comments: Possesses five plantar pads. Ellerman (1961) included this species under the genus *Rattus* Fischer, 1803 and recognized two subspecies, namely *Rattus meltada meltada* (Gray, 1837) and *Rattus meltada pallidor* (Ryley, 1914). Corbet and Hill (1992) listed three subspecies, namely, *Millardia meltada pallidor* Ryley, 1914, *Millardia meltada dunni* Thomas, 1917 and *Millardia meltada singuri* Mandal and Ghosh, 1981. Agrawal (2000) synonymized *Millardia meltada pallidor* Ryley, 1914 and *Millardia meltada singuri* Mandal and Ghosh, 1981 with the present taxon
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**129. *Millardia gleadowi* (Murray, 1885)**1885. *Mus gleadowi* Murray, Proc. Zool. Soc. Lond., 1885:809

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**Sand-coloured Metad**

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Type locality:	Karachi, Sindh, Pakistan
Synonyms:	<i>Mus gleadowi</i> Murray, 1885
Subspecies:	None
Distribution:	Endemic to South Asia <i>Millardia gleadowi</i> (Murray, 1885) India—Gujarat and Rajasthan Pakistan—Balochistan, Khyber Pakhtunkhwa, and Sindh
Comments:	Possesses four plantar pads. Ellerman (1961) included this species under the genus <i>Rattus</i> Fischer, 1803

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**130. *Millardia kondana* Mishra and Dhanda, 1975**1975. *Millardia kondana* Mishra and Dhanda, J. Mammal., 56:76

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**Large Metad (Kondana Rat)**

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Type locality:	Sinharh (18°23'N, 73°42'E), Poona dist., Maharashtra, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Millardia kondana</i> Mishra and Dhanda, 1975 Maharashtra (known only from the type locality)
Comments:	Large sized metad, unique in possessing six plantar pads. Corbet and Hill (1992) remark that “in describing <i>M. kondana</i> the authors did not mention the presence or absence of <i>M. meltada</i> in the same or adjacent localities, although the latter has been recorded from Pune and from Dharwar where they are of normal size, much smaller than <i>M. kondana</i> ”. Recently recollected from the type locality (Srinivasulu and Pradhan 2003)

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**Genus *Mus* Linnaeus, 1758****Mice**

One of the most complicated group of murids the world over as its classification remains unstable. Marshall's work (Marshall 1977a, b, 1986) provides valuable clarifications regarding forms belonging to this genus in the Indo-Malayan region (Corbet and Hill 1992). Agrawal (2000) opines that though Marshall (1977b) overcame the anomalies in the taxonomy of *platythrix*-complex of species, the problems in taxonomy of *booduga-cervicolor* still remains unresolved. Ellerman (1961) listed only two subgenera, *Mus* Linnaeus, 1758 and *Coelomys* Thomas, 1915. However, all the forms of *Mus* Linnaeus, 1758 have been classified under three subgenera, namely *Mus* Linnaeus, 1758, *Pyromys* Thomas, 1911, and *Coelomys* Thomas, 1915 (Marshall 1977b, 1986; Bonhomme 1986; She et al. 1990; Corbet and Hill 1992; Macholán 2001; Chevret et al. 2003). Four subgenera are recognized (Chevret et al. 2005 and Veyrunes et al. 2006). Molecular phylogenetic studies suggest a strong

affinity of *Mus* with *Apodemus* Kaup, 1829 than with *Rattus* Fischer, 1803 (Martin et al. 2000; Michaux et al. 2002). Eleven species are recognized from South Asia. Two species each are endemic to India and Sri Lanka.

### 131. *Mus musculus* Linnaeus, 1758

1758. *Mus musculus* Linnaeus, Syst. Nat. 10th ed., 1:62

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#### House Mouse

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Type locality: Uppsala, Sweden

Synonyms: *Mus nipalensis* Hodgson, 1841 (*nomen nudum*)

*Mus manei* Gray, 1843

*Mus bactrianus* Blyth, 1846

*Mus humourus* Hodgson, 1845

*Mus urbanus* Hodgson, 1845

*Mus dubius* Hodgson, 1845

*Mus castaneus* Waterhouse, 1843

*Mus manei* Kelaart, 1852 (not of Gray, 1843) (*nomen nudum*)

*Mus gerbillinus* Blyth, 1853

*Mus theobaldi* Blyth, 1853

*Mus tytleri* Blyth, 1859

*Mus musculus praetextus* (Brants, 1827)

*Mus musculus homourus* (Hodgson, 1845)

Subspecies: *Mus musculus musculus* Linnaeus, 1758

*Mus musculus castaneus* Waterhouse, 1843

*Mus musculus domesticus* Schwarz and Schwarz, 1943 (not Ruddy, 1772) (*nomen nudum*), but conserved as *domesticus* Schwarz and Schwarz, 1943 (Marshall 1998; IUCN 1990)

*Mus musculus bactrianus* Blyth, 1846

Distribution: *Mus musculus bactrianus* Blyth, 1846

Afghanistan—Kandahar Province

Pakistan—Balochistan and Sindh

India—Jammu and Kashmir and Punjab

*Mus musculus castaneus* (Waterhouse, 1843)

Afghanistan—Unknown locality (may possibly in Central region)

India—Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Gujarat,

Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka,

Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Punjab,

Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal

Bangladesh—Widespread

Bhutan—Widespread

Nepal—Central and Eastern Nepal

Pakistan—Widespread

Sri Lanka—Central, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces

*Mus musculus domesticus* Schwarz and Schwarz, 1943

India—Widespread

Pakistan—Widespread

Nepal—Widespread

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## House Mouse

*Mus musculus musculus* Linnaeus, 1758

India—Widespread

Pakistan—Widespread

Comments: Belongs to subgenus *Mus* Linnaeus, 1758. This taxon was reviewed and revised by Schwarz and Schwarz (1943), Ellerman and Morrison-Scott (1951), Marshall (1977b, 1981, 1986, 1998) and Marshall and Sage (1981). Biochemical and morphological studies by Bonhomme et al. (1984), Boursot et al. (1993, 1996), Prager et al. (1998), and Marshall (1998) led to a new classification of this group. In general, this complex has been traditionally divided into four distinct groups, namely, *castaneus* group, *domesticus* group, *musculus* group, and *bactrianus* group (Boursot et al. 1993, 1996; Sage et al. 1993; Bonhomme et al. 1994; Yonekawa et al. 1994; Din et al. 1996; Marshall 1998) of which the *bactrianus* group is not much studied (Din et al. 1996). These groups were sometimes treated at species level (Marshall and Sage 1981; Sage et al. 1993; Marshall 1998; Prager et al. 1998) but included by majority of authors as subspecies of *Mus musculus* Linnaeus, 1758 (Boursot et al. 1993, 1996; Yonekawa et al. 1981, 1994; Suzuki and Kurihara 1994; Din et al. 1996; Prager et al. 1998; Musser and Carleton 2005)

**132. *Mus platythrix* Bennett, 1832**1832. *Mus platythrix* Bennett, Proc. Zool. Soc. Lond., 1832:121

## Brown Spiny Mouse

Type locality: Dhukun, Peninsular India

Synonyms: *Leggada bahadur* Wroughton and Ryley, 1913*Leggada grahami* Ryley, 1913*Leggada hanningtoni* Ryley, 1913

Subspecies: None

Distribution: Endemic to India

*Mus platythrix* Bennett, 1832

Andhra Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, and West Bengal

Comments: Belongs to subgenus *Pyromys* Thomas, 1911. Sometimes also included under subgenus *Coelomys* Thomas, 1915 based on mitochondrial DNA analysis (Chevret et al. 2003). Earlier the taxa *gurkha* Thomas, 1914 and *sadhu* Wroughton, 1911 were considered valid subspecies of this taxon (Ellerman and Morrison-Scott 1951). However, these are now included under *Mus saxicola* Elliot, 1839 with which *Mus platythrix* Bennett, 1832 shares close affinities. This taxon has been revised and reviewed by Marshall (1977b) and Agrawal (2000). See Prakash et al. (1995a, b, c) and Chandrasekar-Rao and Sunquist (1996) for distribution records. Bhutan record of this species by Wangchuk et al. (2004) needs confirmation

### 133. *Mus booduga* (Gray, 1837)

1837. *Leggada booduga* Gray, Charlesworth's Mag. Nat. Hist., 1:586

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#### Common Indian Field Mouse (Little Indian Field Mouse)

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- Type locality: S. Mahratta (now probably somewhere in Karnataka), India
- Synonyms: *Leggada booduga* Gray, 1837  
*Mus lepidus* Elliot, 1839  
*Mus terricolor* Blyth, 1851  
*Mus albidiventris* Blyth, 1852  
*Mus fulvidiventris* Blyth, 1852  
*Mus beavani* Peters, 1866  
*Leggada dunni* Wroughton, 1912  
*Gatamyia weragami* Deraniyagala, 1965
- Subspecies: None
- Distribution: *Mus booduga* (Gray, 1837)  
Bangladesh—Unknown locality  
India—Andhra Pradesh, Andaman and Nicobar Islands, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal  
Nepal—Eastern, Far-Western, and Western Nepal  
Pakistan—Punjab and Sindh  
Sri Lanka—Central, North Central, North Eastern, North Western, Sabaragamuwa, Southern, and Uva Provinces
- Comments: Belongs to subgenus *Mus* Linnaeus, 1758. Ellerman (1961) provisionally listed two subspecies, namely *Mus booduga booduga* (Gray, 1837) and *Mus booduga lepidoides* (Fry, 1931). The former including the taxa "*lepidus*", "*terricolor*", and "*dunni*". Ellerman and Morrison-Scott (1951), Corbet and Hill (1992), and Agrawal (2000) synonymized *Mus dunni* (Wroughton, 1912) and *Mus terricolor* Blyth, 1851 with *Mus booduga* (Gray, 1837). However, morphometric, chromosomal, and mitochondrial DNA studies (Rana et al. 1998; Sharma et al. 1986) support the specific status of *Mus booduga* (Gray, 1837) and *Mus terricolor* Blyth, 1851, including *Mus dunni* (Wroughton, 1912)
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### 134. *Mus saxicola* Elliot, 1839

1839. *Mus saxicola* Elliot, Madras J. Litt. Sci., 10:215

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#### Elliot's Spiny Mouse

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- Type locality: Madras, India
- Synonyms: *Mus spinulosus* Blyth, 1854  
*Mus (Leggada) ramnadensis* Bentham, 1908  
*Mus platythrix ramnadensis* Bentham, 1908  
*Leggada platythrix sadhu* Wroughton, 1911  
*Mus platythrix sadhu* (Wroughton, 1911)  
*Leggada cinderella* Wroughton, 1912  
*Leggadilla gurkha* Thomas, 1914  
*Mus platythrix gurkha* (Thomas, 1914)  
*Mus musculus pygmaeus* Biswas and Khajuria, 1955  
*Mus musculus khumbuensis* Biswas and Khajuria, 1968
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Elliot's Spiny Mouse

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- Subspecies: *Mus saxicola saxicola* Elliot, 1839  
*Mus saxicola sadhu* (Wroughton, 1911)  
*Mus saxicola gurkha* (Thomas, 1914)
- Distribution: Endemic to South Asia  
*Mus saxicola saxicola* Elliot, 1839  
 Endemic to India, Andhra Pradesh, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra and Tamil Nadu  
*Mus saxicola sadhu* (Wroughton, 1911)  
 Endemic to South Asia  
 India—Gujarat  
 Pakistan—Balochistan and Sindh  
*Mus saxicola gurkha* (Thomas, 1914)  
 Endemic to South Asia  
 India—Uttarakhand and West Bengal  
 Nepal—Throughout (in the plains)
- Comments: Belongs to subgenus *Pyromys* Thomas, 1911. Ellerman (1961) included the forms under *Mus platythrix* Bennett, 1832. See comments under *Mus platythrix* Bennett, 1832. Agrawal (2000) listed three subspecies based on chromosomal studies by Rishi and Puri (1978). The taxon *pygmaeus* Biswas and Khajuria, 1955, earlier included under *Mus musculus* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Musser and Carleton 1993), is according to studies by Marshall (1998) young of *saxicola* Elliot, 1839. For Indian distribution, see Prakash et al. (1995a, b, c) and Chakraborty and Agrawal (2000). The taxon *khumbuensis* Biswas and Khajuria, 1968 earlier included under *Mus musculus* Linnaeus, 1758 is presently synonymized under *Mus saxicola* Elliot, 1839 (Musser and Carleton 2005). May also occur in Bhutan
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**135. *Mus cervicolor* Hodgson, 1845**1845. *Mus cervicolor* Hodgson, Ann. Mag. Nat. Hist., (1)15:268.

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Fawn-coloured Mouse

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- Type locality: Nepal
- Synonyms: *Mus strophiatius* Hodgson, 1845  
*Mus cunicularis* Blyth, 1855  
*Leggada nagarum imphalensis* Roonwal, 1948
- Subspecies: *Mus cervicolor cervicolor* Hodgson, 1845
- Distribution: *Mus cervicolor cervicolor* Hodgson, 1845  
 Bhutan—Unknown localities in foothills  
 India—Andaman and Nicobar Islands (only on South Andaman Islands, introduced), Jammu and Kashmir, Manipur, Meghalaya, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western and Western Nepal  
 Pakistan—Punjab
- Comments: Belongs to subgenus *Mus* Linnaeus, 1758. Earlier included *fulvidiventris* Blyth, 1852 and *phillipsi* Wroughton, 1912 as valid subspecies (Ellerman and Morrison-Scott 1951). The former taxon is now included under *Mus booduga*, while the latter is now treated as distinct species. May possibly also occur in Bangladesh
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**136. *Mus terricolor* Blyth, 1851**1851. *Mus terricolor* Blyth, J. Asiat. Soc. Bengal 20:172

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 Earth-coloured Mouse (Common Indian Field Mouse, Little Indian Field Mouse)
 

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- Type locality: S. Mahratta (now probably somewhere in Karnataka), India
- Synonyms: *Mus beavanii* Peters, 1866  
*Leggada dunni* Wroughton, 1912
- Subspecies: None
- Distribution: *Mus terricolor* Blyth, 1851  
Bangladesh—Chittagong  
India—Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal  
Nepal—Central, Eastern, Mid-Western, Far-Western, and Western Nepal  
Pakistan—Punjab and Sindh
- Comments: Belongs to subgenus *Mus* Linnaeus, 1758. Ellerman and Morrison-Scott (1951), Corbet and Hill (1992) and Agrawal (2000) synonymized *Mus dunni* (Wroughton, 1912) and *Mus terricolor* Blyth, 1851 with *Mus booduga* (Gray, 1837). However, morphometric, chromosomal, and mitochondrial DNA studies (Sharma et al. 1986; Bahadur and Sharma 1995; Rana et al. 1998; Sharma et al. 2002) support the specific status of *Mus booduga* (Gray, 1837) and *Mus terricolor* Blyth, 1851, including *Mus dunni* (Wroughton, 1912), though they are closely related. See Aplin et al. (2003a) for Bangladesh records
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**137. *Mus famulus* Bonhote, 1898**1898. *Mus famulus* Bonhote, J. Bombay Nat. Hist. Soc., 12:99.

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 Bonhote's Mouse
 

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- Type locality: Coonoor, Nilgiri Hills, Tamil Nadu, India
- Synonyms: None
- Subspecies: None
- Distribution: Endemic to India  
*Mus famulus* Bonhote, 1898  
Kerala and Tamil Nadu
- Comments: Belongs to subgenus *Mus* Linnaeus, 1758. Ellerman (1961) listed three subspecies, namely *Mus famulus famulus* Bonhote, 1898, *Mus famulus cookii* (sic) (Ryley, 1914) and *Mus famulus popaeus* (Thomas, 1919). The taxon *cookii* Ryley, 1914 is now considered as a distinct species (Musser and Carleton 2005). This taxon has been revised and reviewed by Marshall (1977b), Corbet and Hill (1992) and Agrawal (2000). Molecular phylogenetic analysis shows that this taxon is closely related to *Mus cervicolor* Hodgson, 1845 and *Mus cookii* Ryley, 1914 (Chevret et al. 2003; Guénet and Bonhomme 2003). Known only from two localities in the Nilgiri Hills, South India
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**138. *Mus phillipsi* Wroughton, 1912**1912. *Mus phillipsi* Wroughton, J. Bombay Nat. Hist. Soc., 21:772

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**Wroughton's Small Spiny Mouse**

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Type locality:	Asirgarh, Nimar, C. Province (now Madhya Pradesh), India
Synonyms:	<i>Leggada (sic) surkha</i> Wroughton and Ryley, 1913 <i>Leggada siva</i> Thomas and Ryley, 1913
Subspecies:	None
Distribution:	Endemic to South Asia <i>Mus phillipsi</i> Wroughton, 1912 India—Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, and Tamil Nadu Nepal—Central Nepal
Comments:	Belongs to subgenus <i>Pyromys</i> Thomas, 1911. Ellerman (1961) treated this taxon as a subspecies of <i>Mus cervicolor</i> Hodgson, 1845. Marshall (1977b) restored it to specific level as earlier. Abe (1977) report its occurrence in Nepal, but list it as <i>Mus cervicolor phillipsi</i> (Wroughton, 1912). Records of this species from different parts of India are given by Prakash et al. (1995a, b, c) and Chakraborty and Agrawal (2000). This taxon has been revised and reviewed by Marshall (1977b) and Agrawal (2000)

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**139. *Mus cookii* Ryley, 1914**1914. *Mus cookii* Ryley, J. Bombay Nat. Hist. Soc., 22:664

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**Ryley's Spiny Mouse (Cook's Mouse)**

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Type locality:	Gokteik, Shan States, N. Burma (now Myanmar)
Synonyms:	<i>Mus famulus cooki (sic)</i> (Ryley, 1914) <i>Leggada nagarum</i> Thomas, 1921 <i>Mus cervicolor nagarum</i> (Thomas, 1921) <i>Leggada palnica</i> Thomas, 1924 <i>Mus cervicolor palnica</i> (Thomas, 1924) <i>Mus cookii nagarum</i> (Thomas, 1921) <i>Mus darjilimensis</i> Hodgson, 1849
Subspecies:	<i>Mus cookii cookii</i> Ryley, 1914
Distribution:	<i>Mus cookii cookii</i> Ryley, 1914 Bangladesh—Unknown location Bhutan—Unknown location India—Arunachal Pradesh, Assam, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Nagaland, Tamil Nadu, and West Bengal Nepal—Unknown location

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**Ryley's Spiny Mouse (Cook's Mouse)**

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Comments: Belongs to subgenus *Mus* Linnaeus, 1758. This taxon has been revised by Marshall (1977b) and Corbet and Hill (1992). Molecular phylogenetic studies show that this taxon is closely related to *Mus cervicolor* Hodgson, 1845 (Graur 1994). The taxon *darjilingensis* Hodgson, 1849 included in the synonymy of *Mus musculus homourus* (Ellerman and Morrison-Scott 1951), is now treated as a synonym of this taxon (Musser and Carleton 2005). Ellerman and Morrison-Scott (1951) and Ellerman (1961) listed *Leggada nagarum* Thomas, 1921 and *Leggada palnica* Thomas, 1924 under *Mus cervicolor* Hodgson, 1845 as *Mus cervicolor nagarum* (Thomas, 1921) and *Mus cervicolor palnica* (Thomas, 1924). They treated *Mus cookii* Ryley, 1914 as the subspecies of *Mus famulus* Bonhote, 1898, mainly because a number of characters overlap. Marshall (1977b) shifted them to *Mus cookie* Ryley, 1914 including the associated synonyms that were attributed to *Mus cervicolor* Hodgson, 1845

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**140. *Mus mayori* (Thomas, 1915)**1915. *Coelomys mayori* Thomas, J. Bombay Nat. Hist. Soc., 23:3 (415)

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**Mayor's Mouse**

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Type locality: Pattipola, Central Mountains, Sri Lanka  
 Synonyms: *Coelomys mayori* Thomas, 1915  
*Coelomys bicolor* Thomas, 1915  
*Mus mayori pococki* Ellerman, 1947  
 Subspecies: *Mus mayori* (Thomas, 1915)  
 Distribution: Endemic to Sri Lanka  
*Mus mayori* (Thomas, 1915)  
 Central, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces  
 Comments: Belongs to subgenus *Coelomys* Thomas, 1915. Ellerman (1961) and Phillips (1980b) recognized two subspecies, namely, *Mus mayori mayori* (Thomas, 1915) and *Mus mayori pococki* Ellerman, 1947. Marshall (1977b) and Corbet and Hill (1992) found no significant differences to warrant subspecific status to the taxon *pococki* Ellerman, 1947 that is presently synonymized under this taxon (Musser and Carleton 2005)

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**141. *Mus pahari* Thomas, 1916**1916. *Mus pahari* Thomas, J. Bombay Nat. Hist. Soc., 24(3):415

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**Sikkim Mouse**

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Type locality: Batasia, Sikkim, India  
 Synonyms: *Leggada jacksoniae* Thomas, 1921  
*Mus pahari jacksoniae* (Thomas, 1921)  
 Subspecies: None  
 Distribution: *Mus pahari* Thomas, 1916  
 Bhutan—West Bhutan  
 India—Arunachal Pradesh, Assam, Nagaland, Meghalaya, Mizoram, Sikkim, and West Bengal

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Sikkim Mouse

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Comments: Belongs to subgenus *Coelomys* Thomas, 1915. Ellerman (1961) listed two subspecies, namely *Mus pahari pahari* Thomas, 1916 and *Mus pahari jacksoniae* (Thomas, 1921) No subspecies recognized (Agrawal 2000; Musser and Carleton 2005)

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**142. *Mus fernandoni* (Phillips, 1932)**1932. *Leggadilla fernandoni* Phillips, Spolia Zeylan., 16:325

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Ceylon Spiny Mouse

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Type locality: Kumbalgamuwa, Mulhalkelle Dist., Sri Lanka  
 Synonyms: *Leggadilla fernandoni* Phillips, 1932  
 Subspecies: None  
 Distribution: Endemic to Sri Lanka  
*Mus fernandoni* (Phillips, 1932)  
 Central, North Eastern, Southern, and Uva Provinces  
 Comments: Belongs to subgenus *Pyromys* Thomas, 1911. Phillips (1980b) provides detailed information on this species. This taxon has been revised and reviewed by Marshall (1977b) and Corbet and Hill (1992)

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**Genus *Nesokia* Gray, 1842****Palaearctic Bandicoot-rat**

One species recognized from South Asia.

**143. *Nesokia indica* (Gray and Hardwicke, 1832)**1832. *Arvicola indica* Gray (in Hardwicke, 1830-35), Illustr. Indian Zool., 1, pl. xi

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Short-tailed Bandicoot-rat

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Type locality: (Uncertain), India  
 Synonyms: *Arvicola indica* Gray and Hardwicke, 1832  
*Mus hardwickei* Gray, 1837  
*Mus huttoni* Blyth, 1846  
*Nesokia griffithi* Horsfield, 1851  
*Spalacomys indicus* Peters, 1860  
*Nesokia beaba* Wroughton, 1908  
*Nesokia indica huttoni* (Blyth, 1846)  
 Subspecies: None  
 Distribution: *Nesokia indica* (Gray and Hardwicke, 1832)  
 Afghanistan—Balkh, Badghis, Farah, Faryab, Helmand, Kandahar, Konduz, Herat, Jowzjan, Nimruz, and Nuristan Provinces  
 Bangladesh—Dhaka  
 India—Bihar, Delhi, Gujarat, Haryana, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Balochistan, Punjab, and Sindh

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**Short-tailed Bandicoot-rat**

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Comments: This taxon has been reviewed by Corbet (1978) and Corbet and Hill (1992). Ellerman (1961) included two subspecies, namely *Nesokia indica indica* (Gray and Hardwicke, 1832) and *Nesokia indica huttoni* (Blyth, 1846). Studies depict a close relationship between this taxon and the species belonging to the genus *Bandicota* Gray, 1873 (Thelma and Rao 1982; Gadi and Sharma 1983; Rao et al. 1983; Juyal et al. 1989; Dubey and Raman 1992; Misonne 1969; Musser and Brothers 1994; Niethammer 1977; Watts and Baverstock 1994; Wroughton 1908a; Radtke and Niethammer 1984[1985]). Musser and Carleton 1993 cite that substantial morphological variation is present among geographic samples and that careful systematic revision is required to determine whether this variation represents one or more species. Regional taxonomic reviews for this taxon include those of Agrawal (2000) for India and Roberts (1977, 1997) for Pakistan

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**Genus *Niviventer* Marshall, 1977****White-bellied Rats**

Belongs to subfamily Murinae. Ellerman (1961) included the forms representing this genus under the subgenus *Maxomys* Sody, 1936 of the genus *Rattus* Fischer 1803 that Misonne (1969) raised to generic level. Marshall (1977a) erected a new genus *Niviventer* to accommodate the species that differed from the true *Maxomys* Sody, 1936 species. Refer Marshall (1977a) for further details. Six species are recognized from South Asia.

**144. *Niviventer niviventer* (Hodgson, 1836)**

1836. *Mus (Rattus) niviventer* Hodgson, J. Asiatic Soc. Bengal, 5:234

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**Himalayan *Niviventer* (Himalayan White-bellied Rat)**

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Type locality: Katmandu, Nepal  
 Synonyms: *Mus (Rattus) niviventer* Hodgson, 1836  
*Mus niveiventer* Blanford, 1891  
*Epimys lepcha* Wroughton, 1916  
*Rattus niviventer lepcha* (Wroughton, 1916)  
*Niviventer niviventer lepcha* (Wroughton, 1916)  
*Rattus niviventer monticola* Ghose, 1964  
 Subspecies: None  
 Distribution: *Niviventer niviventer* (Hodgson, 1836)  
 Bhutan—Central, East, and West Bhutan (in the terai region)  
 India—Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Comments: Ellerman (1961) treated this under subgenus *Maxomys* Sody, 1936 and listed four subspecies, namely *Rattus niviventer niviventer* (Hodgson, 1836), *Rattus niviventer lepcha* (Wroughton, 1916), *Rattus niviventer bukit* (Bonhote, 1903), and *Rattus niviventer mentosus* (Thomas, 1916). Agrawal (2000) synonymized the taxon *Rattus niviventer monticola* Ghose, 1964 with *Niviventer niviventer lepcha* (Wroughton, 1916). Presently, no subspecies are recognized (Musser and Carleton 2005)

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**145. *Niviventer fulvescens* (Gray, 1847)**1847. *Mus fulvescens* Gray, Cat. Hodgson Coll. Br. Mus., 18

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**Indomalayan *Niviventer* (Chestnut Rat)**

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- Type locality: Nepal
- Synonyms: *Mus fulvescens* Gray, 1847  
*Rattus fulvescens* (Gray, 1847)  
*Mus caudatior* Hodgson, 1849  
*Leggada jerdoni* Blyth, 1863  
*Mus octomammis* Gray, 1863
- Subspecies: *Niviventer fulvescens fulvescens* (Gray, 1847)
- Distribution: *Niviventer fulvescens fulvescens* (Gray, 1847)  
India—Arunachal Pradesh, Assam, Himachal Pradesh, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Uttarakhand, and West Bengal  
Pakistan—Khyber Pakhtunkhwa  
Nepal—Central, Eastern, Mid-Western Far-Western, and Western Nepal
- Comments: Ellerman (1961) treated this under genus *Rattus* (*Maxomys*) Fischer, 1803, and listed two subspecies, namely, *Rattus fulvescens fulvescens* (Gray, 1847) and *Rattus fulvescens brahma* (Thomas, 1914). Niethammer and Martens (1975) considered *fulvescens* as a synonym of *Niviventer brahma* (Thomas, 1914). However, the two taxa are treated distinct based on morphological and cranio-dental measurements as also by pelage coloration (Abe 1977). Agrawal (2000) does not recognize any subspecies from Indian region. This taxon may possibly occur in Bangladesh and Bhutan
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**146. *Niviventer brahma* (Thomas, 1914)**1914. *Epimys brahma* Thomas, J. Bombay Nat. Hist. Soc., 23(2):232

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**Brahman *Niviventer* (Thomas' Chestnut Rat)**

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- Type locality: Anzong Valley in Mishmi Hills, N. Assam (now Arunachal Pradesh), India
- Synonyms: *Epimys brahma* Thomas, 1914  
*Rattus fulvescens brahma* (Thomas, 1914)
- Subspecies: None
- Distribution: *Niviventer brahma* (Thomas, 1914)  
India—Arunachal Pradesh
- Comments: Ellerman and Morrison-Scott (1951) and Ellerman (1961) treated this as a subspecies under *Rattus fulvescens* (Gray, 1847), but Musser (1970, 1973a, 1981) restored it to the specific level under the genus *Niviventer* Marshall, 1977 and added that the species is known from only a few specimens
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**147. *Niviventer eha* (Wroughton, 1916)**1916. *Epimys eha* Wroughton, J. Bombay Nat. Hist. Soc., 24:428

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**Smoke-bellied Niviventer (Little Himalayan Rat)**

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- Type locality: Lachen, Sikkim, India
- Synonyms: *Epimys eha* Wroughton, 1916  
*Rattus eha* (Wroughton, 1916)  
*Rattus eha eha* (Wroughton, 1916)  
*Rattus eha ninus* Thomas, 1922
- Subspecies: *Niviventer eha eha* (Wroughton, 1916)
- Distribution: *Niviventer eha eha* (Wroughton, 1916)  
 India—Assam, Arunachal Pradesh, Sikkim, and West Bengal  
 Nepal—Central and East Nepal
- Comments: Ellerman (1961) included this species under genus *Rattus* and listed two subspecies, namely *Rattus eha eha* (Wroughton, 1916) and *Rattus eha ninus* (Thomas, 1922). According to Agrawal (2000), the nominate species occurs in South Asia. This taxon has been reviewed by Musser (1970), Corbet and Hill (1992), Abe (1971) and Gruber (1969). Closely resembles *Niviventer brahma* (Thomas, 1914) (Corbet and Hill 1992; Musser 1981). This taxon may possibly occur in Bhutan
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**148. *Niviventer langbianis* (Robinson and Kloss, 1922)**1922. *Rattus langbianis* Robinson and Kloss, Ann. Mag. Nat. Hist., (9)9:96

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**Indochinese Arboreal Niviventer (Dark-tailed Rat)**

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- Type locality: Langbian Peak, S. Vietnam
- Synonyms: *Rattus langbianis* Robinson and Kloss, 1922  
*Rattus cremoriventer langbianis* (Robinson and Kloss, 1922)  
*Rattus indosinicus* Osgood, 1932  
*Rattus cremoriventer indosinicus* Osgood, 1932
- Subspecies: None
- Distribution: *Niviventer langbianis* (Robinson and Kloss, 1922)  
 India—Arunachal Pradesh
- Comments: Ellerman (1961) treated this under *Rattus cremoriventer* (Miller, 1900) with which it resembles (Corbet and Hill 1992; Musser 1973b, 1981). Musser (1981) treated *Rattus langbianis* Robinson and Kloss, 1922 as a full species being distinct from *Rattus cremoriventer* (Miller, 1900) and assigned it to the genus *Niviventer* Marshall, 1977 and further, also synonymized *Rattus indosinicus* Osgood, 1932 with *Niviventer langbianis* (Robinson and Kloss, 1922). Agrawal (2000) synonymized *Rattus cremoriventer indosinicus* (Osgood, 1932) with this species and recognizes no subspecies
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## Genus *Rattus* Fischer, 1803

### House Rats

Belongs to subfamily Murinae. Thirteen species belonging to three distinct species groups (also including two species belonging to unresolved species group) occur in South Asia. Among the six endemic species in South Asia, two species are endemic to Western Ghats in peninsular India, three are insular endemic restricted to Andaman and Nicobar Islands and one species is endemic to Sri Lanka.

#### 149. *Rattus rattus* (Linnaeus, 1758)

1758. *Mus rattus* Linnaeus, Syst. Nat., 10th ed., 1:61

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#### Common House Rat (Black Rat)

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- Type locality: Uppsala, Sweden
- Synonyms: *Mus rattus* Linnaeus, 1758  
*Mus indicus* Desmarest, 1832  
*Mus asiaticus* Gray, 1837  
*Mus rufescens* Gray, 1837  
*Rattus rattus rufescens* (Gray, 1837)  
*Mus flavescens* Elliot, 1839  
*Mus ceylonus* Kelaart, 1850  
*Rattus rattus ceylonus* (Kelaart, 1850)  
*Mus kandianus* Kelaart, 1850  
*Rattus rattus kandianus* (Kelaart, 1850)  
*Mus tetragonurus* Kelaart, 1850  
*Mus arboreus* Horsfield, 1851  
*Rattus rattus arboreus* (Horsfield, 1851)  
*Mus nemoralis* Blyth, 1851  
*Mus crassipes* Blyth, 1859  
*Mus infralineatus* Blyth, 1863 (*nomen nudum*)  
*Mus kandianus* Kelaart, 1887 (emend.)  
*Mus flebilis* Miller, 1902  
*Rattus rattus flebilis* (Miller, 1902)  
*Mus pulliventer* Miller, 1902  
*Mus atratus* Miller, 1902  
*Mus atridorsum* Miller, 1903  
*Rattus* (?) *rattus atridorsum* (Miller, 1903)  
*Epimys rattus shigarius* Miller, 1913  
*Rattus rattus shigarius* (Miller, 1913)  
*Epimys kelaarti* Wroughton, 1915  
*Rattus rattus kelaarti* (Wroughton, 1915)  
*Rattus rattus tistae* Hinton, 1918  
*Rattus rattus bhotia* (Hinton, 1918)  
*Rattus rattus narbadae* Hinton, 1918  
*Rattus rattus girensis* Hinton, 1918  
*Rattus rattus wroughtoni* Hinton, 1919
- Subspecies: None
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## Common House Rat (Black Rat)

- Distribution: *Rattus rattus* (Linnaeus, 1758)  
 Afghanistan—Konar, Nangarhar, and Nuristan Provinces  
 Bangladesh—Throughout  
 Bhutan—Throughout  
 India—Throughout  
 Nepal—Throughout  
 Pakistan—Throughout  
 Sri Lanka—Throughout
- Comments: *Rattus rattus* species group. Evolved within south to southeast Asian region (Yosida 1980; Baverstock et al. 1983a; Gadi and Sharma 1983; Reudas and Kirsch 1997; Suzuki et al. 2000; Verneau et al. 1998), introduced worldwide. Five distinct populations of *Rattus rattus* recognized: the Asian type  $2n=42$  chromosomes and high C-banding, the Japanese type  $2n=42$  chromosomes with low C-banding (*Rattus tanezumi*), Sri Lankan type  $2n=40$  chromosomes, Oceanic type (also European)  $2n=38$  chromosomes, and Mauritius type  $2n=42$  chromosomes (endemic to Mauritius) (Yoshida 1980; Baverstock et al. 1983b; Aplin et al. 2003b). Studies by Yosida (1977, 1978, 1979, 1980), Yosida et al. (1971), Yosida et al. (1974), and Baverstock et al. (1983b) suggest two chromosomal forms of *Rattus rattus* (Linnaeus, 1758) occur in Sri Lanka a  $2n=40$  form on the central highlands and a  $2n=38$  form on the coastal lowlands with an occasional  $2n=39$  form indicating hybridization. No subspecies are recognized (Musser and Carleton 2005) and the taxa *arboreus* Horsfield, 1851, *girensis* Hinton, 1918, *narbadae* Hinton, 1918 and *wroughtoni* Hinton, 1919 are considered forms of *Rattus rattus* (Linnaeus, 1758) (Gadi and Sharma 1983; Lakhotia et al. 1973; Raman and Sharma 1977; Srinivasulu and Pradhan 2003; Musser and Carleton 2005)

**150. *Rattus norvegicus* (Berkenhout, 1769)**1769. *Mus norvegicus* Berkenhout, Outlines Nat. Hist. Gt. Britain and Ireland, 1:5

## Norway Rat, Brown Rat

- Type locality: Great Britain
- Synonyms: *Mus norvegicus* Berkenhout, 1769  
*Mus decumanoides* Hodgson, 1814 (*nomen nudum*)
- Subspecies: *Rattus norvegicus norvegicus* (Berkenhout, 1769)
- Distribution: *Rattus norvegicus norvegicus* (Berkenhout, 1769)  
 India—Andhra Pradesh, Maharashtra, Tamil Nadu, and West Bengal  
 Pakistan—Balochistan, Punjab, and Sindh  
 Sri Lanka—North Eastern, Southern, and Western Provinces
- Comments: *Rattus norvegicus* species group. Ellerman (1961) included this species under subgenus *Rattus* Fischer, 1803. Has been introduced by human agencies through transportation and it is restricted to large cities only (Ellerman 1961; Spillett 1968; Phillips 1980b; Pradhan 1975; Corbet and Hill 1992; Agrawal 2000). Molecular and isozymic data indicate this taxon differs from *Rattus rattus* Fischer, 1803 and the phylogenetic divergence took place 2–8 million years ago (Chan 1977; Brown and Simpson 1981; Baverstock et al. 1983b; Verneau et al. 1997, 1998). This taxon has been reviewed by Hassinger (1973), Corbet and Hill (1992), Agrawal (2000), and Aplin et al. (2003b)

**151. *Rattus tanezumi* (Temminck, 1844)**

1844. *Mus tanezumi* Temminck, In Seibold, Temminck, and Schlegel, Fauna Japonica, Arnz et Socii, Lugduni Batavorum, 51, pl. 15, figs. 5–7

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 Oriental House Rat (Tanezumi Rat)
 

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- Type locality: Probably near Nagasaki on Kyushu Island, Japan
- Synonyms: *Mus tanezumi* Temminck, 1844  
*Mus brunneusculus* Hodgson, 1845  
*Rattus rattus brunneusculus* (Hodgson, 1845)  
*Mus brunneus* Hodgson, 1845  
*Rattus rattus brunneus* Hodgson, 1845  
*Rattus rattus brevicaudus* Chakraborty, 1975  
*Rattus rattus gangutrianus* Hinton, 1919  
*Rattus rattus tistae* Hinton, 1918
- Subspecies: None
- Distribution: *Rattus tanezumi* (Temminck, 1844)  
 Afghanistan—Laghman Province  
 Bangladesh—Dinajpur, Myemensingh, Rangpur, and Sylhet  
 Bhutan—Central, East, and West Bhutan  
 India—Arunachal Pradesh, Assam, Bihar, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal. Introduced in Little and Great Nicobar Isles of the Andaman and Nicobar Islands  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Khyber Pakhtunkhwa
- Comments: *Rattus rattus* species group. Musser and Carleton (1993) used the nomen *Rattus rattus* to represent the Oceanic group and *Rattus tanezumi* for the Asian group. Although Schwabe (1979) found morphometric and craniodental differences between the two, it still warrants confirmation. Yosida et al. (1974), Yosida (1980), and Baverstock et al. (1983b) opine that this taxon is karyotypically and genetically distinct from other forms. Reviewed by Aplin et al. (2003b)
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**152. *Rattus nitidus* (Hodgson, 1845)**

1845. *Mus nitidus* Hodgson, Ann. Mag. Nat. Hist., (1)15:267

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 Himalayan Rat (Himalayan Field Rat)
 

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- Type locality: Nepal
- Synonyms: *Mus nitidus* Hodgson, 1845  
*Mus horeites* Hodgson, 1845  
*Mus aequicaudalis* Hodgson, 1849  
*Mus guhai* Nath, 1952
- Subspecies: *Rattus nitidus nitidus* (Hodgson, 1845)
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**Himalayan Rat (Himalayan Field Rat)**

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- Distribution: *Rattus nitidus nitidus* (Hodgson, 1845)  
 Bhutan—East Bhutan  
 India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Tripura, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central and Eastern Nepal
- Comments: *Rattus norvegicus* species group. Ellerman (1961) included this species under subgenus *Rattus* Fischer, 1803 and listed two subspecies, namely *Rattus nitidus nitidus* (Hodgson, 1845) and *Rattus nitidus obsoletus* Hinton, 1919. Corbet and Hill (1992) retained *Rattus nitidus obsoletus* Hinton, 1919, while Agrawal (2000) synonymized it with *Rattus nitidus nitidus* (Hodgson, 1845) based on overlap of characters. Marshall (1977a) synonymized *Mus guhai* Nath (1952) with this species as the description of *Mus guhai* Nath (1952) was based upon a litter of *Rattus nitidus* (Hodgson, 1845). Recent molecular analyses show that *R. nitidus* (Hodgson, 1845) and *R. norvegicus* (Berkenhout, 1769) are closely related, which is supported by morphological studies that depict many morphological similarities between the two (Musser and Carleton 2005)
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**153. *Rattus pyctoris* (Hodgson, 1845)**1845. *Mus pyctoris* Hodgson, Ann. Mag. Nat. Hist. 15:267

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**Turkestan Rat**

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- Type locality: Nepal
- Synonyms: *Mus pyctoris* Hodgson, 1845  
*Mus rattoides* Hodgson, 1845  
*Mus turkestanicus* Satunin, 1903  
*Rattus turkestanicus* (Satunin, 1903)  
*Mus vicereus* Bonhote, 1903  
*Epimys rattus shigarus* Miller, 1913  
*Rattus rattus shigarus* (Miller, 1913)  
*Rattus turkestanicus khumbuensis* Biswas and Khajuria, 1955  
*Rattus turkestanicus gilgitianus* Akhtar, 1959
- Subspecies: None
- Distribution: *Rattus pyctoris* (Hodgson, 1845)  
 Afghanistan—Badakhshan, Badghis, Balkh, Farah, Faryab, Helmand, Herat, Jowzjan, Kabul, Kandahar, Konduz, Nimruz, and Takhar Provinces  
 Bangladesh—Sylhet  
 Bhutan—Central, East, and West Bhutan  
 India—Arunachal Pradesh, Assam, Jammu and Kashmir (also in Disputed Kashmir), Himachal Pradesh, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Khyber Pakhtunkhwa and Punjab
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## Turkestan Rat

Comments: *Rattus norvegicus* species group. Ellerman (1961) included the taxon *turkestanicus* Satunin, 1903 under *Rattus rattoides* (Hodgson, 1845) and listed *Rattus rattoides rattoides* (Hodgson, 1845) and *Rattus rattoides turkestanicus* (Satunin, 1903). The name *Rattus rattoides* (Hodgson, 1845) [earlier *Mus rattoides* Hodgson, 1845] was found to be preoccupied by *Mus rattoides* Pictet and Pictet, 1844 from Brazil, hence Schlitter and Thonglongya (1971) replaced it with the next available name *Mus turkestanicus* Satunin 1903 [later *Rattus turkestanicus* (Satunin, 1903)]. Corbet and Hill (1992) synonymized *Rattus rattus khumbuensis* Biswas and Khajuria, 1955 with *Rattus turkestanicus* (Satunin, 1903). Agrawal (2000) dealt in detail about the existing overlaps of published information regarding forms of this species reported from Nepal, and opined that to accommodate Nepal specimens earlier named *Rattus rattoides rattoides* (Hodgson, 1845) be replaced by the name *Rattus turkestanicus khumbuensis* Biswas and Khajuria, 1955. Roberts (1997) has made a reference of a distinct subspecies, *Rattus turkestanicus gilgitianus* Akhtar, 1955 occurring in Gilgit (in Disputed Kashmir). This species may include two or more taxa and requires revision. Musser and Carleton (1993) pointed out that the oldest name for the complex is *pyctoris* (Hodgson, 1845), incorrectly listed as a synonym of *Rattus nitidus* (Hodgson, 1845) by Ellerman (1961) and would replace *turkestanicus* Satunin, 1903 if all samples represent a single species, or would identify the Nepal and Sikkim populations if not conspecific. Additionally, Hinton (1922) treated the taxa *turkestanicus* Satunin, 1903, *vicereus* Bonhote, 1903 and *rattoides* Hodgson, 1845 as distinct but are now synonymized under *Rattus pyctorius* (Hodgson, 1845) (Caldarini et al. 1989; Capanna and Corti 1991; Niethammer and Martens 1975). Also *turkestanicus* Satunin, 1903 and *vicereus* Bonhote, 1903 occur together in Jammu and Kashmir, India (Chakraborty 1983; Corbet and Hill 1992; Agrawal 2000; Musser and Carleton 2005) and though *vicereus* Bonhote, 1903 exhibits morphological variations from *turkestanicus* Satunin, 1903 pending further studies these taxa are presently included under *Rattus pyctorius* (Hodgson, 1845)

**154. *Rattus exulans* (Peale, 1848)**1848. *Mus exulans* Peale, Mammalia, in Repts. U. S. Explor. Surv., 8:47

## Polynesian Rat

Type locality: Tahiti Island, Society Islands (France)  
 Synonyms: *Mus exulans* Peale, 1848  
*Mus concolor* Blyth, 1859  
 Subspecies: None  
 Distribution: *Rattus exulans* (Peale, 1848)  
 Bangladesh—Chittagong and Sylhet  
 Comments: *Rattus exulans* species group. Ellerman (1961) included this species under subgenus *Rattus* Fischer, 1803 and mentions about the *Rattus exulans concolor* (Blyth, 1859) from Myanmar region. Corbet and Hill (1992) and Musser and Carleton (1993) include Bangladesh in its distribution range in South Asia. This species does not occur in Indian limits (Agrawal 2000)

**155. *Rattus andamanensis* (Blyth, 1860)**1860. *Mus (Leggada) andamanensis* Blyth, J. Asiat. Soc. Bengal 29:103

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**Indochinese Forest Rat**

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Type locality:	South Andaman Islands, Andaman Islands, India
Synonyms:	<i>Mus (Leggada) andamanensis</i> Blyth, 1860 <i>Rattus rattus holchu</i> Chaturvedi, 1965 <i>Rattus burrulus</i> Miller, 1902 <i>Rattus rattus sikkimensis</i> Hinton, 1919
Subspecies:	None
Distribution:	<i>Rattus andamanensis</i> (Blyth, 1860) Bhutan—Central, East, and West Bhutan India—Andaman and Nicobar Islands, Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland, Sikkim, and West Bengal Nepal—Central and Eastern Nepal
Comments:	<i>Rattus rattus</i> species group. This taxon has been described under various <i>nomen</i> —sometimes as <i>Rattus sikkimensis</i> (Musser and Newcomb 1983; Musser and Heaney 1985; Musser and Carleton 1993), included under <i>Rattus rattus</i> (Corbet and Hill 1992), included under <i>R. sladeni</i> (Van Peenen et al. 1969), as <i>R. koratensis</i> (Dao 1985), included sometimes under both <i>R. koratensis</i> and <i>R. remotus</i> (Marshall 1977), as <i>yaoshanensis</i> (Shih 1930) that was included under <i>Niviventer</i> (Corbet and Hill 1992), as <i>Rattus rattus holchu</i> (Chaturvedi, 1965) and as <i>Rattus burrulus</i> (Miller, 1902). All these forms represent <i>Rattus andamanensis</i> (Blyth, 1860) ( <i>see</i> Musser and Carleton 2005). This taxon may possibly occur in Bangladesh

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**156. *Rattus palmarum* (Zelevor, 1869)**1869. *Mus palmarum* Zelevor, Reise der Oesterr., Fregatte Novara, Zool. Th. I, Wirbelth., 1, Saugeth., 26

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**Car Nicobar Rat (Zelevor's Nicobar Rat, Palm Rat)**

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Type locality:	Car Nicobar, Nicobar Islands, India
Synonyms:	<i>Mus palmarum</i> Zelevor, 1869
Subspecies:	None
Distribution:	Endemic to India <i>Rattus palmarum</i> (Zelevor, 1869) Car Nicobar and Great Nicobar Islands (in Nicobar Isles), Andaman and Nicobar Islands
Comments:	<i>Rattus rattus</i> species group. Corbet and Hill (1992), Musser and Carleton 1993, and Agrawal (2000) following Musser and Heaney (1985) and Musser and Newcomb (1983) remark that it is most closely related to <i>Rattus tiomanicus</i> (Miller, 1900). It is known from only very few specimens

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**157. *Rattus burrus* (Miller, 1902)**1902. *Mus burrus* Miller, Proc. U. S. nation. Mus., 24:768

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**Miller's Nicobar Rat**

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Type locality:	Trinkut Island, Nicobar Isles, Andaman and Nicobar Islands, India
Synonyms:	<i>Mus burrus</i> Miller, 1902 <i>Mus burrescens</i> Miller, 1902
Subspecies:	None
Distribution:	Endemic to India <i>Rattus burrus</i> (Miller, 1902) Great Nicobar, Little Nicobar and Trinket islands (in Nicobar Isles), Andaman and Nicobar Islands
Comments:	<i>Rattus rattus</i> species group. Ellerman (1961) treated this species along with <i>Rattus burrus</i> (Miller, 1902) and <i>Rattus burrescens</i> (Miller, 1902) as conspecifics. Corbet and Hill (1992) synonymized all the three species under <i>Rattus tiomanicus</i> (Miller, 1900) with doubtful status, and further commented that the "inclusion of the forms on the Andaman Islands is tentative, although the three forms described from there, <i>burrus</i> , <i>burrusulus</i> , and <i>burrescens</i> , are very similar to each other and probably conspecific". Musser and Heaney (1985) show its affinity to <i>Rattus tiomanicus</i> (Miller, 1900), while Agrawal (2000) remarks that this taxon is close to <i>Rattus rattus</i> (Linnaeus, 1758). Morphologically similar to <i>Rattus palmarum</i> (Zelebor, 1869) (Musser and Carleton 2005)

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**158. *Rattus stoicus* (Miller, 1902)**1902. *Mus stoicus* Miller, Proc. U. S. nation. Mus., 24:759

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**Andaman Rat (Miller's Long-footed Rat)**

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Type locality:	Henry Lawrence Island, Andaman Isles, Andaman and Nicobar Islands, India
Synonyms:	<i>Mus stoicus</i> Miller, 1902 <i>Mus taciturnus</i> Miller, 1902 <i>Mus rogersi</i> Thomas, 1907 <i>Rattus rogersi</i> (Thomas, 1907)
Subspecies:	None
Distribution:	Endemic to India <i>Rattus stoicus</i> (Miller, 1902) Henry Lawrence Island, Middle Andaman and South Andaman (in Andaman Isles) of Andaman and Nicobar Islands
Comments:	<i>Rattus rattus</i> species group. Ellerman (1961) opined that it "possibly represents <i>Rattus palmarum</i> , possibly a member of <i>sabanus</i> group, or perhaps a representative of <i>mulleri</i> group". Considered distinct by Corbet and Hill (1992) and Agrawal (2000). See Musser and Newcomb (1983) and Musser and Heaney (1985) for description and distribution records

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**159. *Rattus satarae* Hinton, 1918**1918. *Rattus rattus satarae* Hinton, J. Bombay Nat. Hist. Soc. 26:87

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**Sahyadri Forest Rat**

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Type locality:	Ghatmatha (2000ft), Satara dist. Maharashtra, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Rattus satarae</i> Hinton, 1918 Karnataka, Maharashtra, and Tamil Nadu (in the Western Ghats)
Comments:	<i>Rattus rattus</i> species group. For distribution records, see Hinton (1918), Tiwari et al. (1972), and Verneau et al. (1997)

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**160. *Rattus montanus* Phillips, 1932**1932. *Rattus montanus* Phillips, Ceylon Jour. Sci, Sec. B, 16:323

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**Sri Lankan Mountain Rat (Nillu Rat)**

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Type locality:	Ohiya, West Haputale, Sri Lanka
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Rattus montanus</i> Phillips, 1932 Central and Uva Provinces
Comments:	<i>Rattus</i> unresolved species group. Ellerman (1961) included this species under subgenus <i>Rattus</i> Fischer, 1803. Corbet and Hill (1992), Musser (1986) consider this taxon to be distinct morphologically and also dentally and warrant exclusion from the genus <i>Rattus</i> Fischer, 1803. However, it is presently included here pending future studies (Musser and Carleton 2005)

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**161. *Rattus ranjinae* Agrawal and Ghosh, 1969**1969. *Rattus ranjinae* Agrawal and Ghosh, Proc. Zool. Soc. Calcutta, 22:41–45

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**Ranjini's Field Rat (Kerala Rat)**

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Type locality:	Trivandrum, Kerala, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Rattus ranjinae</i> Agrawal and Ghosh, 1969 Kerala (reported from Thrissur, Alleppey and Thiruvananthapuram districts)
Comments:	<i>Rattus</i> unresolved species group. Corbet and Hill (1992) opined that its inclusion as a member of subgenus <i>Rattus</i> Fischer, 1803 is open to question. This distinctive species is known from very few specimens and Musser and Carleton (2005) based on its unique morphological and cranio-dental characters opine that this species needs to be excluded from the genus <i>Rattus</i> Fischer, 1803

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### Genus *Srilankamys* Musser, 1981

Belongs to subfamily Murinae. Musser (1981) erected this genus *Srilankamys* to accommodate *Rattus ohiensis* Phillips, 1929—a unique Sri Lankan endemic Rat that was in past been assigned to different subgenera by different authors.

#### 162. *Srilankamys ohiensis* (Phillips, 1929)

1929. *Rattus ohiensis* Phillips, Ceylon. J. Sci., Sec. B, 15:167

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#### Ohiya Rat

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Type locality:	West Haputale, Ohiya, Sri Lanka
Synonyms:	<i>Rattus ohiensis</i> Phillips, 1929
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Srilankamys ohiensis</i> (Phillips, 1929) Central, Sabaragamuwa, and Uva Provinces
Comments:	Ellerman (1961) listed this taxon as <i>Rattus ohiensis</i> Phillips, 1929. Corbet and Hill (1992) remark that this species was variously included under <i>Rattus</i> ( <i>Apomys</i> ) by Ellerman (1949), in <i>Rattus</i> ( <i>Lenothrix</i> ) by Ellerman (1961) and in <i>Rattus</i> ( <i>Leopoldamys</i> ) by Misonne (1969). However, this taxon was found to possess phylogenetic affinities with <i>Chiromyscus</i> Thomas, 1925 and <i>Niviventer</i> Marshall, 1976 and not with <i>Rattus</i> Fischer, 1803, subsequently, Musser (1981) erected the genus <i>Srilankamys</i> to accommodate this very distinctive species

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### Genus *Vandeleuria* Gray, 1842

#### Long-tailed Tree Mice

Belongs to subfamily Murinae. Ellerman (1961) listed one species, namely *Vandeleuria oleracea* (Bennett, 1832) including seven subspecies. See Phillips (1926). This genus differs from others in not possessing claws on the fifth finger and toe (Agrawal and Chakraborty 1980). Three species are recognized from South Asia, of which one each is endemic to India and Sri Lanka, while the third species is non-endemic.

#### 163. *Vandeleuria oleracea* (Bennett, 1832)

1832. *Mus oleraceus* Bennett, Proc. Zool. Soc. London, 1832:121

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#### Indian Long-tailed Tree Mouse (Asiatic Long-tailed Climbing Mouse)

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Type locality:	Deccan, India
Synonyms:	<i>Mus oleraceus</i> Bennett, 1832 <i>Mus dumeticola</i> Hodgson, 1845 <i>Mus povensis</i> Hodgson, 1845 <i>Vandeleuria wroughtoni</i> Ryley, 1914 <i>Vandeleuria oleracea spadicea</i> Ryley, 1914 <i>Vandeleuria rubida</i> Thomas, 1914 <i>Vandeleuria oleracea rubida</i> Thomas, 1914 <i>Vandeleuria oleracea modesta</i> Thomas, 1914 <i>Vandeleuria oleracea marica</i> Thomas, 1914 <i>Vandeleuria oleracea dumeticola</i> (Hodgson, 1845)

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**Indian Long-tailed Tree Mouse (Asiatic Long-tailed Climbing Mouse)**


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Subspecies:	<i>Vandeleuria oleracea oleracea</i> (Bennett, 1832)
Distribution:	<i>Vandeleuria oleracea oleracea</i> (Bennett, 1832) Bangladesh—Khulna Bhutan—Central, East, and West Bhutan India—Andhra Pradesh, Arunachal Pradesh, Assam, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, and West Bengal Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal Sri Lanka—Central, North Eastern, Southern, Uva, and Western Provinces
Comments:	Probably represents a species complex (Sharma and Raman 1972; Raman and Sharma 1976; Agrawal and Chakraborty 1980; Satyaprakash and Aswathanarayan 1973, 1976; Musser and Carleton 1993; Agrawal 2000; Winking et al. 1979). The taxon <i>dumeticola</i> (Hodgson, 1845) that was earlier considered subspecies (Ellerman and Morrison-Scott 1951; Agrawal 2000) has been synonymized under this taxon (Musser and Carleton 2005)

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**164. *Vandeleuria nilagirica* (Jerdon, 1867)**1867. *Mus nilagiricus* Jerdon, Mammals of India, 203 pp**Nilgiri Vandeleuria**


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Type locality:	Ootacamund, Nilgiri Hills, Tamil Nadu, India
Synonyms:	<i>Mus nilagiricus</i> Jerdon, 1867
Subspecies:	None
Distribution:	Endemic to India <i>Vandeleuria nilagirica</i> (Jerdon, 1867) Western Ghats of Tamil Nadu (in Nilgiri Hills) and Karnataka
Comments:	Though earlier treated as a distinct species (Ellerman 1941), this taxon has been included under <i>Vandeleuria oleracea</i> (Bennett, 1832) (Ellerman 1961; Agrawal and Chakraborty 1980; Musser and Carleton 1993; Agrawal 2000). Corbet and Hill (1992) treated it to be distinct based on a specimen collected from Kutta in Nilgiri Hills of Tamil Nadu. See Rao and Aswathanarayana (1979) for chromosomal pattern in this species

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**165. *Vandeleuria nolthenii* Phillips, 1929**1929. *Vandeleuria oleracea nolthenii* Phillips, Ceylon J. Sci., Sec. B, 15:165**Ceylon Highland Tree Mouse (Sri Lankan Highland Tree Mouse)**


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Type locality:	West Haputale, Ohiya, Sri Lanka
Synonyms:	<i>Vandeleuria nilagirica nolthenii</i> Phillips, 1929 <i>Vandeleuria oleracea nolthenii</i> Phillips, 1929
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Vandeleuria nolthenii</i> Phillips, 1929 Central Province

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(continued)

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**Ceylon Highland Tree Mouse (Sri Lankan Highland Tree Mouse)**

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Comments: Ellerman (1941) treated this taxon as the subspecies of *Vandeleuria nilagirica* (Jerdon, 1867), while Ellerman (1961), Agrawal and Chakraborty (1980), and Phillips (1980b) included this taxon under *Vandeleuria oleracea* (Bennett, 1832). Corbet and Hill (1992), Musser (1979), and Musser and Carleton (1993) treated this taxon distinct by virtue of its distinct montane distribution, pelage coloration, external, and cranial traits

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**Infraorder Hystricognathi Brandt, 1855**

The infraorder Hystricognathi Brandt, 1855 includes the family Hystricidae G. Fischer, 1817 (Woods and Kilpatrick 2005).

**Family Hystricidae G. Fischer, 1817**

Ellerman (1940) and Ellerman and Morrison-Scott (1951) include taxa belonging to this family under two genera, namely, *Atherurus* Cuvier, 1829 and *Hystrix* Linnaeus, 1758. Sometimes, two subfamilies, namely Hystricinae Fischer, 1817 and Atherurinae Lyon, 1907, are recognized (Ellerman 1940; Ellerman and Morrison-Scott 1951; Woods 1993; McKenna and Bell 1997). This family has been reviewed by Mohr (1965) and Van Weers (1976, 1977, 1978, 1979, 1983). Includes three species in two genera in South Asia.

**Genus *Atherurus* Cuvier, 1829****Brush-tailed Porcupines**

Characterized by unique beaded structure of the tail quills (Corbet and Hill 1992). It is represented by one species in South Asia (van Weers 1977).

**166. *Atherurus macrourus* (Linnaeus, 1758)**

1758. *Hystrix macrourus* Linnaeus, Syst. Nat. 10th ed., 1:57

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**Asiatic Brush-tailed Porcupine**

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Type locality: Malacca, Malaya (=Malaysia)  
 Synonyms: *Hystrix macrourus* Linnaeus, 1758  
*Hystrix macroura* Linnaeus, 1758  
*Atherurus assamensis* Thomas, 1921  
*Atherurus macrourus macrourus* (Linnaeus, 1758)  
*Atherurus macrourus assamensis* (Thomas, 1921)  
 Subspecies: *Atherurus macrourus macrourus* (Linnaeus, 1758).  
 Distribution: *Atherurus macrourus macrourus* (Linnaeus, 1758)  
 India—Arunachal Pradesh, Manipur, Meghalaya, Mizoram, and Nagaland  
 Comments: No subspecies recognized only the nominate species is valid in its range (Agrawal 2000). This taxon may possibly occur in Bangladesh

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## Genus *Hystrix* Linnaeus, 1758

### Old World Porcupines

The genus *Hystrix* Linnaeus, 1758 including two subgenera, namely, *Hystrix* Linnaeus, 1758 and *Acanthion*, Cuvier, 1823 (Van Weers 1978, 1979) is represented by two species in South Asia.

#### 167. *Hystrix brachyura* Linnaeus, 1758

1758. *Hystrix brachyura* Linnaeus, Syst. Nat. 10th ed., 1:57

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#### Himalayan Crestless Porcupine (Malayan Porcupine)

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- Type locality: Malacca, Malaya (=Malaysia)
- Synonyms: *Acanthion hodgsoni* Gray, 1847  
*Hystrix hodgsoni* (Gray, 1847)  
*Hystrix alophus* Hodgson, 1847  
*Hystrix bengalensis* Blyth, 1851  
*Hystrix subcristata* Swinehoe, 1870  
*Acanthion millsii* Thomas, 1922
- Subspecies: *Hystrix brachyura bengalensis* Blyth, 1851  
*Hystrix brachyura hodgsoni* (Gray, 1847)  
*Hystrix brachyura subcristata* (Swinehoe, 1870)
- Distribution: *Hystrix brachyura bengalensis* Blyth, 1851  
 India—Sikkim and West Bengal  
*Hystrix brachyura hodgsoni* (Gray, 1847)  
 India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram,  
 Nagaland, Sikkim, and West Bengal  
 Nepal—Central, Eastern, and Southern Nepal  
*Hystrix brachyura subcristata* (Swinehoe, 1870)  
 Bangladesh—Khulna  
 India—Nagaland
- Comments: Belongs to subgenus *Acanthion* Cuvier, 1823 (Van Weers 1979; Lekagul and McNeely 1988). Ellerman and Morrison-Scott (1951) and Ellerman (1961) treated *Hystrix hodgsoni* (Gray, 1847) as distinct and included *Hystrix hodgsoni hodgsoni* (Gray, 1847) and *Hystrix hodgsoni subcristata* (Swinehoe, 1870). Corbet and Hill (1992) following Van Weers (1979) synonymized *Acanthion hodgsoni* Gray, 1847 with *Hystrix brachyura* Linnaeus, 1758
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**168. *Hystrix indica* Kerr, 1792**1792. *Hystrix cristata* var. *indica* Kerr, Anim. Kingdom:213

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**Indian Crested Porcupine**

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Type locality:	India
Synonyms:	<i>Hystrix cristata</i> var. <i>indica</i> Kerr, 1792 <i>Hystrix leucurus</i> Sykes, 1831 <i>Hystrix zeylonensis</i> Blyth, 1851 <i>Hystrix malabarica</i> Sclatter, 1865 <i>Hystrix hirsutirostris blanfordi</i> Muller, 1911 <i>Hystrix cuneiceps</i> Wroughton, 1912
Subspecies:	None
Distribution:	<i>Hystrix indica</i> (Kerr, 1792) Afghanistan—Badakhshan, Badghis, Balkh, Farah, Faryab, Helmand, Herat, Jowzjan, Kandahar, Konduz, Nimruz, and Takhar Provinces India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu and Kashmir (including parts of Disputed Kashmir), Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttarakhand, and Uttar Pradesh Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh Nepal—Far-Western Nepal Sri Lanka—Central, North Central, Sabaragamuwa, Southern and Western Provinces
Comments:	Belongs to subgenus <i>Acanthion</i> (Cuvier, 1823). Agrawal (2000) opines that there are no recognized subspecies of this taxon

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**Order Lagomorpha Brandt, 1855****Family Ochotonidae Thomas, 1897**

The subgeneric classification of the family Ochotonidae Thomas, 1897 is still under confusion (Lissofsky et al. 2007) and has been over the ages worked out by Allen (1938), Ellerman and Morrison-Scott (1951), Weston (1982), Smith et al. (1990), Yu (1997), Yu et al. (1992, 1996, 1997, 2000), Erbajeva (1994, 1998), and Niu et al. (2004). Yu et al. (2000) proposed three main subgroups of *Pika* namely a northern subgroup, a shrub-steppe dwelling subgroup, and a mountain subgroup, which are distinct from that of Allen (1938). The present subgeneric classification is largely based on Yu et al. (2000). Wangchuk et al. (2004) doubtfully include *Ochotona gloveri* (Thomas, 1922) based on a single individual photographed in Rodong-la, Central Bhutan. The present work does not include this taxon due to lack of confirmation of the species identity.

**Genus *Ochotona* Link, 1795****Pikas**

This genus is represented by nine species in three subgenera, namely, *Ochotona* Link, 1795, *Pika* Lacépède, 1799, and *Conothoa* Lyon, 1904 in South Asia

(Hoffmann and Smith 2005; Molur et al. 2005; Lanier and Olson 2009). Restricted in distribution to the Himalayas.

### 169. *Ochotona roylei* (Ogilby, 1839)

1839. *Lagomys roylei* Ogilby, Royle's Illus., Botany Himalaya, lxix

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#### Royle's Pika

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- Type locality: Choor Mountains, Punjab, India
- Synonyms: *Lagomys roylei* Ogilby, 1839  
*Lagomys nepalensis* Hodgson, 1841  
*Ochotona wardi* Bonhote, 1904  
*Ochotona angdawai* Biswas and Khajuria, 1955  
*Ochotona mitchelli* Agrawal and Chakraborty, 1971  
*Ochotona roylei wardi* Bonhote, 1904
- Subspecies: *Ochotona roylei roylei* (Ogilby, 1839)  
*Ochotona roylei nepalensis* Hodgson, 1841
- Distribution: *Ochotona roylei roylei* (Ogilby, 1839)  
 India—Jammu and Kashmir (including Disputed Kashmir), Himachal Pradesh, Sikkim, and Uttarakhand  
 Pakistan—Punjab and Khyber Pakhtunkhwa  
*Ochotona roylei nepalensis* Hodgson, 1841  
 Nepal—Central, Eastern, and Mid-Western Nepal
- Comments: Belongs to subgenus *Conothoa* Lyon, 1904. Ellerman and Morrison-Scott (1951) included the taxon *Lagomys hodgsoni* Blyth, 1841 under *Ochotona roylei* (Ogilby, 1839) that was later assigned to *Ochotona nubrica* Thomas 1922 by Hoffmann (1993). The taxon *Ochotona roylei baltina* Thomas, 1922 listed earlier under *Ochotona roylei* (Ogilby, 1839) is presently synonymized with *Ochotona macrotis* (Günther, 1875) (*see* comments therein) by Hoffmann (1993) and Hoffmann and Smith (2005). The taxon *nepalensis* Hodgson, 1841 may possibly also occur in Bhutan
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### 170. *Ochotona rufescens* (Gray, 1842)

1842. *Lagomys rufescens* Gray, Ann. Mag. Nat. Hist., (1)10:266

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#### Afghan Pika

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- Type locality: Near Babur's Tomb, Kabul, Afghanistan
- Synonyms: *Lagomys rufescens* Gray, 1842  
*Ochotona rufescens vulturina* Thomas, 1920
- Subspecies: *Ochotona rufescens rufescens* (Gray, 1842)
- Distribution: *Ochotona rufescens rufescens* (Gray, 1842)  
 Afghanistan—Badghis, Baghlan, Bamian, Ghazni, Ghowr, Kabul, Khowst, Lowgar, Oruzgan, Paktika, Patkia, Parvan, Samangan, Sar-e-Pol, Vardak, and Zabol Provinces  
 Pakistan—Balochistan and Khyber Pakhtunkhwa
- Comments: Belongs to subgenus *Ochotona* Link, 1795. Ellerman and Morrison-Scott (1951) included *Ochotona rufescens vulturina* Thomas, 1920 that was reported from Kelat, Balochistan, which they remarked to be either an aberrant form and may or may not belong to *Ochotona rufescens* (Gray, 1842)
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**171. *Ochotona curzoniae* (Hodgson, 1858)**1858. *Lagomys curzoniae* Hodgson, J. Asiat. Soc. Bengal, 26:207

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**Black-lipped (Plateau Pika)**

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- Type locality: Chumbi Valley, S. Tibet, China  
 Synonyms: *Lagomys curzoniae* Hodgson, 1858  
*Ochotona dauurica curzoniae* (Hodgson, 1858)  
 Subspecies: None  
 Distribution: *Ochotona curzoniae* (Hodgson, 1858)  
 India—Sikkim  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Comments: Belongs to subgenus *Ochotona* Link, 1795. Ellerman and Morrison-Scott (1951) and Mitchell (1978) treated this taxon as a subspecies of *Ochotona dauurica* Pallas, 1776. However, it is treated distinct due to differences in morphological, chromosomal, and mitochondrial DNA (Feng and Zheng 1985; Vorontsov and Ivanitskaya 1973; Zhou and Xia 1981; Hoffmann 1993; Yu et al. 1997, 2000; Hoffmann and Smith 2005). May possibly also occur in Bhutan
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**172. *Ochotona thibetana* (Milne-Edwards, 1871)**1871. *Lagomys thibetanus* Milne-Edwards in David, Nouv. Arch. Mus. Hist. Nat. Paris Bull. 7:93

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**Moupin Pika**

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- Type locality: Moupin, Sichuan, China  
 Synonyms: *Lagomys thibetanus* Milne-Edwards, 1871  
*Ochotona thibetana* deWinton and Styan, 1899  
*Ochotona hodgsoni* Bonhote, 1905  
*Ochotona sikimaria* Thomas, 1922  
 Subspecies: *Ochotona thibetana sikimaria* (Thomas, 1922)  
 Distribution: *Ochotona thibetana sikimaria* (Thomas, 1922)  
 Bhutan—Central, East, and West Bhutan  
 India—Arunachal Pradesh, Sikkim, and West Bengal  
 Nepal—Central and Eastern Nepal  
 Comments: Belongs to subgenus *Ochotona* Link, 1795. Earlier included *forresti* Thomas, 1923 and *nubrica* Thomas, 1922 (Hoffmann 1993). The taxon *Ochotona sikimaria* Thomas, 1922, earlier assigned to *Ochotona cansus* Lyon, 1707 by Feng and Kao (1974), Feng and Zheng (1985), and Zhang et al. (1997), has been assigned to *Ochotona thibetana* (Milne-Edwards, 1871) following Smith et al. (1990)
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**173. *Ochotona ladacensis* (Günther, 1875)**1875. *Lagomys ladacensis* Günther, Ann. Mag. Nat. Hist., (4)16:231

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**Ladakh Pika**

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Type locality:	Changra Lake, Ladakh, Jammu and Kashmir, India
Synonyms:	<i>Lagomys ladacensis</i> Günther, 1875
Subspecies:	None
Distribution:	<i>Ochotona ladacensis</i> (Günther, 1875) India—Jammu and Kashmir (including Disputed Kashmir) Pakistan—Khyber Pakhtunkhwa
Comments:	Belongs to subgenus <i>Conothoa</i> Lyon, 1904

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**174. *Ochotona macrotis* (Günther, 1875)**1875. *Lagomys macrotis* Günther, Ann. Mag. Nat. Hist., (4)16:231

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**Large-eared Pika**

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Type locality:	Doba, C. Tibet, China
Synonyms:	<i>Lagomys macrotis</i> Günther, 1875 <i>Lagomys auritus</i> Blanford, 1875 <i>Lagomys griseus</i> Blanford, 1875 <i>Ochotona wollastoni</i> Thomas and Hinton, 1922 <i>Ochotona roylei baltina</i> Thomas, 1922
Subspecies:	<i>Ochotona macrotis macrotis</i> (Günther, 1875) <i>Ochotona macrotis wollastoni</i> Thomas and Hinton, 1922 <i>Ochotona macrotis auritus</i> Blanford, 1875
Distribution:	<i>Ochotona macrotis macrotis</i> (Günther, 1875) Afghanistan—Badakhshan and Nuristan Provinces. India—Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), Sikkim, and Uttarakhand Bhutan—Central, East, and West Bhutan. Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal Pakistan—Khyber Pakhtunkhwa <i>Ochotona macrotis wollastoni</i> Thomas and Hinton, 1922 Nepal—Eastern Nepal <i>Ochotona macrotis auritus</i> Blanford, 1875 India—Jammu and Kashmir (in Ladakh)
Comments:	Belongs to subgenus <i>Conothoa</i> Lyon, 1904. Gureev (1964), Corbet (1978), Gromov and Baranova (1981), and Roberts (1977) listed this taxon under <i>Ochotona roylei</i> (Ogilby, 1839), while Hoffmann (1993) following Kawamichi (1971), Abe (1971), Mitchell (1978, 1981), Weston (1982), Feng and Zheng (1985), and Feng et al. (1986) consider it as a distinct species. Following Hoffmann (1993), we synonymize <i>Ochotona roylei baltina</i> Thomas, 1922 with this taxon

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**175. *Ochotona nubrica* Thomas, 1922**1922. *Ochotona nubrica* Thomas, Ann. Mag. Nat. Hist., (9)9:187

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**Nubra Pika**

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- Type locality: Tuggur, Nubra Valley, Ladakh, Jammu and Kashmir, India
- Synonyms: *Lagomys hodgsoni* Blyth, 1841  
*Ochotona pusilla nubrica* (Thomas, 1922)  
*Ochotona lama* Mitchell and Punzo, 1975  
*Ochotona aliensis* Zheng, 1979
- Subspecies: *Ochotona nubrica nubrica* Thomas, 1922  
*Ochotona nubrica lhasaensis* Feng et Kao, 1973
- Distribution: *Ochotona nubrica nubrica* Thomas, 1922  
 India—Himachal Pradesh (parts of) and Jammu and Kashmir (in Ladakh)  
*Ochotona nubrica lhasaensis* Feng et Kao, 1973  
 Nepal—Central Nepal
- Comments: Belongs to subgenus *Ochotona* Link, 1795. Earlier treated under *pusilla* Pallas, 1769 (Ellerman and Morrison-Scott 1951), *thibetana* Milne-Edwards, 1871 (Feng et al. 1986) and *roylei* Ogilby, 1839 (Corbet 1978). Hoffmann (1993) treated it as a distinct species following Smith et al. (1990) and Yu et al. (1992). The taxon *Lagomys hodgsoni* Blyth, 1841, that had been treated as a synonym of *Ochotona roylei* (Ogilby, 1839) by Ellerman and Morrison-Scott (1951) has been presently synonymized with this taxon (Hoffmann 1993). This taxon is closely related to *O. curoznieae* Hodgson, 1858 (Yu et al. 2000). In Nepal, restricted to the Himalayas and may occur more widely; also see Thapa et al. 2011. May possibly also occur in Bhutan
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**176. *Ochotona forresti* Thomas, 1923**1923. *Ochotona forresti* Thomas, Ann. Mag. Nat. Hist., 11:662

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**Forrest's Pika**

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- Type locality: North-western flank, Likiang range, China
- Synonyms: *Ochotona pusilla forresti* Thomas, 1923  
*Ochotona roylei forresti* Thomas, 1923  
*Ochotona thibetana forresti* Thomas, 1923
- Subspecies: None
- Distribution: *Ochotona forresti* Thomas, 1923  
 Bhutan—Central, East, and West Bhutan  
 India—Arunachal Pradesh, Assam, Nagaland, and Sikkim  
 Nepal—East Nepal
- Comments: Belongs to subgenus *Conothoa* Lyon, 1904. Earlier treated under *pusilla* Pallas, 1769 (Ellerman and Morrison-Scott 1951), *roylei* Ogilby, 1839 (Corbet 1978), *thibetana* Milne-Edwards, 1871 (Gureev 1964; Feng and Kao 1974; Weston 1982). Treated as a distinct species following Smith et al. (1990)
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**177. *Ochotona himalayana* Feng, 1973**1973. *Ochotona himalayana* Feng, Acta Zool. Sinica, 19:69, 73

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**Himalayan Pika**

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- Type locality: Shigaste, Xizang, China  
 Synonyms: *Ochotona roylei himalayana* Feng, 1973  
 Subspecies: None  
 Distribution: *Ochotona himalayana* Feng, 1973  
                   Nepal—Eastern Nepal  
 Comments: Belongs to subgenus *Conothoa* Lyon, 1904. Corbet (1978), Weston (1982), and Formozov (1997) included this taxon under *Ochotona roylei* (Ogilby, 1839). However, studies by Feng and Zheng (1985), Feng et al. (1986), and Yu et al. (2000) indicate it to be a distinct species. May possibly also occur in Bhutan
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**Family Leporidae Fischer, 1817**

Corbet (1983) reviewed the genera belonging to this family. It is represented by five species in two genera, namely *Lepus* Linnaeus, 1758 and *Caprolagus* Blyth, 1845, in South Asia.

**Genus *Caprolagus* Blyth, 1845****Hispid Hare**

Monotypic genus, presently restricted in distribution to India.

**178. *Caprolagus hispidus* (Pearson, 1839)**1839. *Lepus hispidus* Pearson, In Mc'Clelland, Proc. Zool. Soc. London, 1838:152 (1839)

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**Hispid Hare (Assam Rabbit)**

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- Type locality: North Assam, India  
 Synonyms: *Lepus hispidus* Pearson, 1839  
 Subspecies: None  
 Distribution: Endemic to India  
                   *Caprolagus hispidus* (Pearson, 1839)  
                   India—Assam, Madhya Pradesh (now extinct), Uttar Pradesh (now extinct), and West Bengal  
 Comments: Distributions of this species in South Asia given by Santapau and Abdulali (1960), Mallinson (1971), Ghose (1978), and Bell et al. (1990). Probably may also occur in Bhutan. Once widespread in the terai region from western Uttar Pradesh to through most of Nepal. Presently extinct from Bangladesh (known from Mymensingh) and Nepal (known from Far-Western Nepal)
-

## Genus *Lepus* Linnaeus, 1758

### Hares and rabbits

Simpson (1945) treated this genus under subfamily Leporinae Trouessart, 1880. Subsequent authors do not recognize subfamily categorization (Ellerman and Morrison-Scott 1951; Corbet 1983). Hoffmann (1993) opines that the taxonomy of this genus remains controversial. This genus is represented by four species in South Asia.

#### **179. *Lepus tolai* Pallas, 1778**

1778. *Lepus tolai* Pallas, Nova. Spec. Quad. Glir. Ord. p 17

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##### Tolai Hare

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Type locality:	Valley of Selenga River, Russia
Synonyms:	<i>Lepus capensis tolai</i> Pallas, 1778 <i>Lepus habibi</i> Baloutch, 1978
Subspecies:	None
Distribution:	<i>Lepus tolai</i> Pallas, 1778 Afghanistan—Badakhshan, Balkh, Jowzjan, Konduz and Takhar Provinces
Comments:	The present status of its distribution in South Asia is unknown, excepting that it may occur in Badakhshan region of Afghanistan. Earlier treated as subspecies of <i>Lepus capensis</i> Linnaeus, 1758 (Ellerman and Morrison-Scott 1951) that was later synonymized by Corbet (1978). Lately, these two taxa are considered specifically distinct (Hoffmann 1993; Hoffmann and Smith 2005; Alves et al. 2008)

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#### **180. *Lepus nigricollis* Cuvier, 1823**

1823. *Lepus nigricollis* Cuvier, Dict. Sci. Nat., 26:307

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##### Black-naped Hare (Indian Hare)

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Type locality:	Madras, India
Synonyms:	<i>Lepus ruficaudatus</i> Geoffroy, I., 1826 <i>Lepus macrotus</i> Hodgson, 1840 <i>Lepus aryabertensis</i> Hodgson, 1844 <i>Lepus joongshaiensis</i> Murray, 1854 <i>Lepus tytleri</i> Tytler, 1854 <i>Lepus dayanus</i> Blanford, 1874 <i>Lepus simcoxi</i> Wroughton, 1912 <i>Lepus mahadeva</i> Wroughton and Ryley, 1913 <i>Lepus rajput</i> Wroughton, 1918 <i>Lepus cutchensis</i> Kloss, 1918 <i>Lepus sadiya</i> Kloss, 1918

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**Black-naped Hare (Indian Hare)**

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- Subspecies: *Lepus nigricollis nigricollis* Cuvier, 1823  
*Lepus nigricollis ruficaudatus* Geoffroy, I., 1826  
*Lepus nigricollis aryabertensis* Hodgson, 1844  
*Lepus nigricollis dayanus* Blanford, 1874  
*Lepus nigricollis simcoxi* Wroughton, 1912  
*Lepus nigricollis singhala* Wroughton, 1915  
*Lepus nigricollis sadiya* Kloss, 1918
- Distribution: Endemic to South Asia.  
*Lepus nigricollis nigricollis* Cuvier, 1823  
 Endemic to India, Andhra Pradesh, Karnataka, Kerala, Maharashtra, and Tamil Nadu  
*Lepus nigricollis ruficaudatus* Geoffroy, I., 1826  
 Endemic to South Asia  
 Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
 Bhutan—Central, East, and West Bhutan  
 India—Assam, Bihar, Chhattisgarh, Jharkhand, Gujarat, Goa, Haryana, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Punjab, Rajasthan, Sikkim, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Foothills of the Himalayas, no exact location known  
 Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh  
*Lepus nigricollis aryabertensis* Hodgson, 1844  
 Endemic to Nepal, Central Nepal  
*Lepus nigricollis dayanus* Blanford, 1874  
 Endemic to South Asia  
 Afghanistan—Nangarhar and Paktiya Provinces  
 India—Gujarat and Rajasthan  
 Pakistan—Punjab and Sindh  
*Lepus nigricollis simcoxi* Wroughton, 1912  
 Endemic to India, Madhya Pradesh and Maharashtra  
*Lepus nigricollis singhala* Wroughton, 1915  
 Endemic to Sri Lanka, Uva Province  
*Lepus nigricollis sadiya* Kloss, 1918  
 Endemic to India, Assam
- Comments: In Bhutan, this taxon occurs throughout the lowland areas bordering India. The subspecies boundaries are yet to be resolved (Suchentrunk and Davidovic 2003)
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**181. *Lepus oiostolus* Hodgson, 1840**1840. *Lepus oiostolus* Hodgson, J. Asiat. Soc. Bengal., 9:1186

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**Woolly Hare**

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- Type locality: Southern Tibet, Xizang, China  
 Synonyms: *Lepus pallipes* Hodgson, 1842  
*Lepus hypsibius* Blanford, 1875  
*Lepus grahami* Howell, 1928  
*Lepus oiostolus grahami* Howell, 1928
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**Woolly Hare**

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- Subspecies: *Lepus oiostolus pallipes* Hodgson, 1842  
*Lepus oiostolus hypsibius* Blanford, 1875
- Distribution: *Lepus oiostolus pallipes* Hodgson, 1842  
 India—Jammu and Kashmir (in Ladakh) and Sikkim  
 Nepal—Eastern, Mid-Western, and Western Nepal  
*Lepus oiostolus hypsibius* Blanford, 1875  
 India—Jammu and Kashmir (in Ladakh and Disputed Kashmir)
- Comments: The taxon, *Lepus oiostolus pallipes* Hodgson, 1842 may probably also occur in Bhutan. Johnson et al. (1980) doubtfully report the presence of the taxon *grahami* Howell, 1928 from Eastern Nepal
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**182. *Lepus tibetanus* Waterhouse, 1841**1841. *Lepus tibetanus* Waterhouse, Proc. Zool. Soc. London, Part IX:7

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**Desert Hare**

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- Type locality: Upper Indus Valley, Little Tibet (=Baltistan)
- Synonyms: *Lepus capensis tibetanus* Waterhouse, 1841  
*Lepus biddulphi* Blanford, 1877  
*Lepus craspedotis* Blanford, 1875  
*Lepus arabicus craspedotis* Blanford, 1875
- Subspecies: *Lepus tibetanus tibetanus* Waterhouse, 1841  
*Lepus tibetanus craspedotis* Blanford, 1875
- Distribution: *Lepus tibetanus tibetanus* Waterhouse, 1841  
 Afghanistan—Badakhshan, Badghis, Bamian, Faryab, Ghazni, Herat, Konduz, Laghman, Lowghar, Nuristan, Paktiya, Parvan, Sar-e-Pol, Takhar, Vardak, and Zabol Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir)  
 Pakistan—Khyber Pakhtunkhwa  
*Lepus tibetanus craspedotis* Blanford, 1875  
 Endemic to Pakistan, Balochistan
- Comments: Treated distinct till 1930s, then treated under *Lepus capensis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Petter 1959, 1961). The latter taxon presently represents forms belonging to Africa and Arabia (Hoffmann and Smith 2005). The taxa *europaeus* Pallas, 1778, *tolai* Pallas, 1778, and *tibetanus* Waterhouse, 1841 were reviewed by Heptner (1934) who considered all the three of them under a single species to which Ognev (1966) disagreed, remarking that all the three were distinct from each other. Qui (1989) analyzed the cluster analysis data of Luo (1981) and concluded that *tibetanus* Waterhouse, 1841 is distinct form *tolai* Pallas, 1778 though he continued to retain them under *capensis* Linnaeus, 1758. Keeping in view all these studies, Hoffmann and Smith (2005) consider the taxa *tibetanus* Waterhouse, 1841 and *tolai* Pallas, 1778 to be distinct from each other and not to be retained under *capensis* Linnaeus, 1758. The taxon *craspedotis* Blanford, 1875, earlier included under *Lepus arabicus* Ehrenberg, 1833, is presently treated under *Lepus tibetanus* Waterhouse, 1841 (Hoffmann and Smith 2005)
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## Order Erinaceomorpha Gregory, 1910

### Family Erinaceidae Fischer, 1817

Earlier included under order Insectivora (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Hutterer 1993; IUCN 1995). Based on molecular studies (Asher et al. 2002; Stanhope et al. 1998; Emerson et al. 1999; Liu et al. 2001; Mouchaty et al. 2000a, b; Nikaido et al. 2001; Arnason et al. 2002), order Erinaceomorpha Gregory, 1910 was resurrected to accommodate this family and its allied species. This family has been reviewed by Corbet (1988), Frost et al. (1991), Gould (1995), and Bannikova et al. (2002).

### Subfamily Erinaceinae Fischer, 1817

Reviewed by Corbet (1988), Robbins and Setzer (1985), and Reeve (1994) and includes two genera for South Asia (Hutterer 2005a). Two genera—*Hemiechinus* Fitzinger, 1866 and *Paraechinus* Trouessart, 1879 are recognized (Ellerman and Morrison-Scott 1951; Pavlinov and Rossolimo 1987; Corbet 1988; Frost et al. 1991; Corbet and Hill 1992; Nowak 1999; Hutterer 2005a).

### Genus *Hemiechinus* Fitzinger, 1866

#### Hedgehogs

Earlier regarded as a subgenus of *Erinaceus* Linnaeus, 1758 (Bobrinsky et al. 1944; Gureev 1979; Gromov and Baranova 1981), it has been accepted as distinct based on skull characters (Ellerman and Morrison-Scott 1951; Corbet 1978, 1988). This genus is represented by two species in South Asia.

#### 183. *Hemiechinus auritus* (Gmelin, 1770)

1770. *Erinaceus auritus* Gmelin, Nov. Comm. Acad. Sci. Petrop., 14:519

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#### Long-eared Hedgehog

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Type locality:	Astrakhan, Southeastern Russia
Synonyms:	<i>Erinaceus auritus</i> Gmelin, 1770 <i>Erinaceus megalotis</i> Blyth, 1845
Subspecies:	<i>Hemiechinus auritus megalotis</i> (Blyth, 1845)
Distribution:	<i>Hemiechinus auritus megalotis</i> (Blyth, 1845) Afghanistan—Ghazni, Kabul, Parvan, and Zabol Provinces Pakistan—Balochistan
Comments:	Earlier treated distinct (Ellerman and Morrison-Scott 1951), the taxon <i>Hemiechinus megalotis</i> Blyth, 1845 is considered as a valid subspecies of this taxon (Niethammer 1973; Roberts 1997; Corbet and Hill 1992; Hutterer 1993, 2005a). See Roberts (1997) and Habibi (2003) for distribution records

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**184. *Hemiechinus collaris* (Gray, 1830)**1830. *Erinaceus collaris* Gray in Hardwicke, Illust. Indian Zool., I pl. 8

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**Collared Hedgehog (Indian Long-eared Hedgehog)**

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- Type locality: Doab, between Yamuna and Ganges rivers, India
- Synonyms: *Erinaceus collaris* Gray, 1830  
*Erinaceus grayi* Bennett, 1832  
*Erinaceus spatangus* Bennett, 1832  
*Erinaceus indicus* Royle, 1833
- Subspecies: None
- Distribution: Endemic to South Asia  
*Hemiechinus collaris* (Gray, 1830)  
 India—Delhi, Gujarat, Himachal Pradesh, Jammu and Kashmir  
 (including Disputed Kashmir), Punjab, Rajasthan, and Uttar Pradesh  
 Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh
- Comments: Earlier treated as subspecies of *Hemiechinus auritus* (Gmelin, 1770) (Ellerman and Morrison-Scott 1951; Corbet 1978), it has been assigned specific status by Corbet and Hill (1992) and Roberts (1997). Maharashtra specimen in National Zoological Collection, Kolkata, India could perhaps be an “introduced” or “isolate” specimen (Chakraborty et al. 2004)
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**Genus *Paraechinus* Trouessart, 1879**

Earlier regarded as a subgenus of *Hemiechinus* Fitzinger, 1866 (Pavlinov and Rossolimo 1987; Frost et al. 1991), it has been accepted as distinct based on morphological characters (Corbet 1988) and molecular data (Morshed and Patton 2002; Bannikova et al. 2002). This genus is represented by three species in South Asia.

**185. *Paraechinus hypomelas* (Brandt, 1836)**1836. *Erinaceus hypomelas* Brandt, Bull. Sci. St. Petersb, I:32

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**Brandt's Hedgehog**

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- Type locality: Somewhere in South Kazakhstan (see Ognev 1927 for discussion)
- Synonyms: *Erinaceus hypomelas* Brandt, 1836  
*Hemiechinus hypomelas* (Brandt, 1836)  
*Erinaceus jerdoni* Anderson, 1878  
*Paraechinus amir* Thomas, 1918  
*Hemiechinus hypomelas jerdoni* (Anderson, 1878)  
*Erinaceus blanfordi* Anderson, 1878  
*Hemiechinus hypomelas blanfordi* (Anderson, 1878)  
*Hemiechinus hypomelas jerdoni* (Anderson, 1878)
- Subspecies: *Paraechinus hypomelas hypomelas* (Brandt, 1836)  
*Paraechinus hypomelas blanfordi* (Anderson, 1878)
- Distribution: *Paraechinus hypomelas hypomelas* (Brandt, 1836)  
 Afghanistan—Kandahar and Nangarhar Provinces  
 Pakistan—Balochistan  
*Paraechinus hypomelas blanfordi* (Anderson, 1878)  
 Endemic to Pakistan, Khyber Pakhtunkhwa, Punjab, and Sindh
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**Brandt's Hedgehog**

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Comments: The taxon *blanfordi* Anderson, 1878 presently under *Paraechinus hypomelas* Brandt, 1836 (Ellerman and Morrison-Scott 1951; Corbet 1988) was earlier included under *Hemiechinus* (Agrawal 1973; Roberts 1997; Hutterer 1993). Reviewed by Nader (1991) and Harrison and Bates (1991). For distribution records, see Roberts (1997) and Habibi (2003)

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**186. *Paraechinus micropus* (Blyth, 1846)**1846. *Erinaceus micropus* Blyth, J. Asiatic Soc. Bengal, 15:70

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**Indian Hedgehog**

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Type locality: Bahawalpur, Punjab, Pakistan  
 Synonyms: *Erinaceus micropus* Blyth, 1846  
*Hemiechinus micropus* (Blyth, 1846)  
*Hemiechinus mentalis* Fitzinger, 1867  
*Erinaceus pictus* Stoliczka, 1872  
*Paraechinus intermedius* Biswas and Ghose, 1970  
*Paraechinus intermedius kutchicus* Biswas and Ghose, 1970  
*Hemiechinus micropus kutchicus* (Biswas and Ghose, 1970)  
 Subspecies: None  
 Distribution: Endemic to South Asia  
*Paraechinus micropus* (Blyth, 1846)  
 India—Gujarat, Maharashtra, Punjab, and Rajasthan  
 Pakistan—Punjab and Sindh  
 Comments: *Paraechinus intermedius* Biswas and Ghose, 1970 and *Paraechinus intermedius kutchicus* Biswas and Ghose, 1970 are in the synonymy of *Paraechinus micropus* (Blyth, 1846) (Corbet 1988; Corbet and Hill 1992; Chakraborty et al. 2004; Hutterer 2005a)

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**187. *Paraechinus nudiventris* (Horsfield, 1851)**1851. *Erinaceus nudiventris* Horsfield, Cat. Mamm. Mus. E. India Co., p 136

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**Madras Hedgehog (Bare-bellied Hedgehog)**

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Type locality: Madras, India  
 Synonyms: *Erinaceus nudiventris* Horsfield, 1851  
*Paraechinus micropus nudiventris* (Horsfield, 1851)  
*Hemiechinus nudiventris* (Horsfield, 1851)  
 Subspecies: None  
 Distribution: Endemic to India  
*Paraechinus nudiventris* (Horsfield, 1851)  
 Andhra Pradesh, Kerala, and Tamil Nadu  
 Comments: Earlier in synonymy of *Paraechinus micropus* (Blyth, 1846) (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992), some authorities treat it as distinct species (Biswas and Ghose 1970; Frost et al. 1991; Hutterer 1993, 2005a; Chakraborty et al. 2004)

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## Order Soricomorpha Gregory, 1910

### Family Soricidae Fischer, 1817

Earlier included under the Order Insectivora (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Hutterer 1993), it is now placed under Order Soricomorpha Gregory, 1910 (McKenna 1975; Butler 1988; Asher 1999, 2001; Stanhope et al. 1998; Emerson et al. 1999; Liu et al. 2001; Malia et al. 2002; Mouchaty et al. 2000a, b; Nikaido et al. 2001; Arnason et al. 2002). Includes 39 species in two subfamilies, namely, Crocidurinae Milne-Edwards, 1872 and Soricinae Fischer, 1817 in South Asia (Molur et al. 2005).

### Subfamily Crocidurinae Milne-Edwards, 1872

#### Genus *Crocidura* Wagler, 1832

#### White-toothed Shrews

The genus *Crocidura* Wagler, 1832 is widespread ranging from Africa to Europe and South East Asia and includes many forms in four subgenera. It is represented by 11 species belonging to subgenus *Crocidura* Wagler, 1832 in South Asia. Reviewed and revised in detail by Bannikova et al. (2006). Vogel et al. (2003), Ohdachi et al. (2004), and Bannikova et al. (2006) opine that east European and Asian populations are distinct from the western European forms and hence are named *C. sauveolens* Pallas, 1811 and *C. mimula* Miller, 1801, respectively. Vogel et al. (2003) and Bannikova et al. (2006) presume *C. gmelini* (Pallas, 1811) to be a synonym of *C. sauveolens* pending taxonomic clarification. *C. gueldenstaedtii* is closer genetically to *C. mimula* and exhibits hybridization with *C. sauveolens* (Bannikova et al. 2001, 2006). The specific status of *C. sibirica* is doubtful although morphologically it was considered distinct (Zaitsev 1991; Ohdachi et al. 2004; Bannikova et al. 2005). Reviewed by Jenkins et al. (2009). The taxon *vorax* G. Allen, 1923 though reported from India (Hutterer 2005b) is known only from the holotype collected from the type locality (Jenkins et al. 2009).

#### 188. *Crocidura leucodon* (Hermann, 1780)

1780. *Sorex leucodon* Hermann in Zimmerman, Geogr. Gesch. Mensch. Vierf. Thiere, 2:382

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#### Bicoloured White-toothed Shrew

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Type locality:	Bashkin, Strasburg, France
Synonyms:	<i>Sorex leucodon</i> Hermann, 1780
Subspecies:	None
Distribution:	<i>Crocidura leucodon</i> (Hermann, 1780) India—Jammu and Kashmir (including Disputed Kashmir)
Comments:	The range of <i>C. leucodon</i> includes Europe and western Africa (Bannikova et al. 2005; Hutterer 2005b). It is included here based on a male specimen collected in 1974 from Daksum, Jammu and Kashmir (Chakraborty 1983). Probably may also occur in Pakistan

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**189. *Crocidura gmelini* (Pallas, 1811)**1811. *Sorex gmelini* Pallas, Zoogr. Ross-Asiat. 1:134, pl. 10, fig. 3

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**Gmelin's White-toothed Shrew**

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Type locality:	Hyrkania (restricted to Iran, Khorossan prov., Bujnurd dist., 85 km W Bujnurd, Dasht by Goodwin (1940) and Hoffmann (1996a))
Synonyms:	<i>Sorex gmelini</i> Pallas, 1811 <i>Sorex minutus gmelini</i> Pallas, 1811
Subspecies:	None
Distribution:	<i>Crocidura gmelini</i> (Pallas, 1811) Afghanistan—Badakhshan Province India—Jammu and Kashmir (in Disputed Kashmir) Pakistan—Punjab and Khyber Pakhtunkhwa
Comments:	Earlier considered a synonym of <i>Sorex minutus</i> Linnaeus, 1766 (Ellerman and Morrison-Scott 1951). Goodwin (1940) assigned it to genus <i>Crocidura</i> Wagler, 1832 and considered it a distinct species. Other smaller crocidurans from middle and central Asia were included under <i>suaveolens</i> (Pallas, 1811) (Lay 1967; Hassinger 1973; Roberts 1977, 1997; Hutterer 1993). Though considered distinct (Hoffmann 1996a, b), Vogel et al. (2003) and Bannikova et al. (2006) presume <i>C. gmelini</i> (Pallas, 1811) to be a synonym of <i>C. suaveolens</i> and pending taxonomic clarification it is provisionally retained as a species

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**190. *Crocidura fuliginosa* (Blyth, 1855)**1855. *Sorex fuliginosus* Blyth, J. Aisat. Soc. Bengal 24:362

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**Southeast Asian Shrew**

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Type locality:	Schwegyin, near Pegu, Burma
Synonyms:	<i>Sorex fuliginosus</i> Blyth, 1855
Subspecies:	None
Distribution:	<i>Crocidura fuliginosa</i> (Blyth, 1855) India—No exact location
Comments:	Exact distribution in India unknown, possibly may occur in Arunachal Pradesh, Nagaland, Manipur, and Mizoram

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**191. *Crocidura horsfieldii* (Tomes, 1856)**1856. *Sorex horsfieldi* Tomes, Ann. Mag. Nat. Hist., [2]17:23

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**Horsfield's Shrew**

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Type locality:	Sri Lanka
Synonyms:	<i>Sorex horsfieldi</i> Tomes, 1856 <i>Crocidura retusa</i> Peters, 1870 <i>Sorex (Crocidura) myoides</i> Blanford, 1875 <i>Crocidura horsfieldi myoides</i> (Blanford, 1875)
Subspecies:	None

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**Horsfield's Shrew**

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- Distribution: Endemic to South Asia  
*Crocidura horsfieldii* (Tomes, 1856)  
India—Karnataka and Jammu and Kashmir  
Nepal—Eastern Nepal  
Sri Lanka—Central, Sabaragamuwa, Uva, and Western Provinces
- Comments: Studied by Jenkins (1976), Jameson and Jones (1977), and Rao and Aswathanarayana (1978). Variations between insular (Sri Lankan) and mainland (Himalayan) forms require further taxonomic studies. Distribution-wise, this taxon seems to be restricted to India and Sri Lanka (Lunde et al. 2003) though it warrants further surveys and studies
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**192. *Crocidura attenuata* Milne-Edwards, 1872**1872. *Crocidura attenuata* Milne-Edwards, Rech. Hist. Nat. Mamm., pp. 263

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**Grey Shrew (Indochinese Shrew)**

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- Type locality: Moupin, Sichuan Province, China
- Synonyms: *Crocidura rubricosa* Anderson, 1877  
*Crocidura attenuata rubricosa* Anderson, 1877  
*Crocidura kingiana* Anderson, 1877  
*Crocidura attenuata kingiana* Anderson, 1877
- Subspecies: None
- Distribution: *Crocidura attenuata* Milne-Edwards, 1872  
Bhutan—Unknown location (Motokawa et al. 2005)  
India—Assam, Jammu and Kashmir, Sikkim, and Uttarakhand  
Nepal—Unknown location
- Comments: Ellerman and Morrison-Scott (1951) included four subspecies under this taxon. However, Corbet and Hill (1992) and Hutterer (1993, 2005b) maintain that there are no subspecies of this taxon. Reviewed by Heaney and Timm (1983). This taxon may probably occur in Pakistan
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**193. *Crocidura andamanensis* Miller, 1902**1902. *Crocidura andamanensis* Miller, Proc. U. S. Natl. Mus., 24: 777

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**Andaman White-toothed Shrew (Andaman Shrew)**

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- Type locality: MacPherson Strait, South Andaman Isle, Andaman and Nicobar Islands, India
- Synonyms: None
- Subspecies: None
- Distribution: Endemic to India  
*Crocidura andamanensis* Miller, 1902  
Andaman and Nicobar Islands (known only from type locality)
- Comments: According to Ellerman & Morrison-Scott (1951) this taxon is probably closely allied to *Crocidura nicobarica* Miller, 1902  
Individuals of this taxon have been collected from Mt. Harriet, Andaman Islands (Das 1999)
-

**194. *Crocidura nicobarica* Miller, 1902**1902. *Crocidura nicobarica* Miller, Proc. U.S. Natnl. Mus., 24:777

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**Nicobar Shrew (Nicobar White-tailed Shrew)**

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Type locality:	Great Nicobar Isle, Andaman and Nicobar Islands, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Crocidura nicobarica</i> Miller, 1902 Andaman and Nicobar Islands (known only from type locality)
Comments:	None

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**195. *Crocidura pullata* Miller, 1911**1911. *Crocidura pullata* Miller, Proc. Biol. Soc. Washington, 24:241

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**Kashmir White-toothed Shrew (Dusky Shrew)**

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Type locality:	Kotihar (7,000 ft), Kashmir, India
Synonyms:	<i>Crocidura russula pullata</i> Miller, 1911
Subspecies:	None
Distribution:	Endemic to South Asia <i>Crocidura pullata</i> Miller, 1911 India—Himachal Pradesh and Jammu and Kashmir (also in Disputed Kashmir) Pakistan—Khyber Pakhtunkhwa and Punjab
Comments:	Earlier included under <i>Crocidura russula</i> Hermann, 1780 (Ellerman and Morrison-Scott 1951; Hutterer 1993). However, this taxon has been raised to specific level based on morphological differences following Jameson and Jones (1977), Lekagul and McNeely (1977), and Jiang and Hoffmann (2001). Also see Catzefflis et al. (1985)

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**196. *Crocidura hispida* Thomas, 1913**1913. *Crocidura hispida* Thomas, Ann. Mag. Nat. Hist., [8]11:468

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**Andaman Shrew (Andaman Spiny Shrew)**

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Type locality:	North End, Middle Andaman Isle, Andaman and Nicobar Islands, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Crocidura hispida</i> Thomas, 1913 Andaman and Nicobar Islands (only from Andaman Isles)
Comments:	None

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**197. *Crocidura pergrisea* Miller, 1913**1913. *Crocidura pergrisea* Miller, Proc. Biol. Soc. Washington, 26:113

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**Pale Grey Shrew**

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- Type locality: Skoro Loomba, Shigar, Baltistan, Jammu and Kashmir, India  
 Synonyms: None  
 Subspecies: None  
 Distribution: Endemic to India  
*Crocidura pergrisea* Miller, 1913  
 Known only from type locality in Jammu and Kashmir (in Disputed Kashmir)  
 Comments: Earlier included *zarudnyi* Ognev, 1928 (Ellerman and Morrison-Scott 1951; Spitzenberger 1971; Corbet 1978), presently both the taxa are treated distinct (Hassinger 1973; Corbet and Hill 1992; Hutterer 1993, 2005b)
- 

**198. *Crocidura rapax* G. Allen, 1923**1923. *Crocidura rapax* G. Allen, Amer. Mus. Nov. No. 100:9

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**Chinese White-toothed Shrew**

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- Type locality: Yinpankai, Mekong River, 9,000 ft, Yunnan, China  
 Synonyms: *Crocidura pullata rapax* G. Allen, 1923  
*Crocidura russula rapax* G. Allen, 1923  
 Subspecies: None  
 Distribution: *Crocidura rapax* G. Allen, 1923  
 India—Meghalaya  
 Comments: Earlier included under *Crocidura russula* Hermann, 1780 (Ellerman and Morrison-Scott 1951), and under *Crocidura pullata* Miller, 1911 (Hutterer 1993), presently recognized to be distinct based on morphological differences (Jiang and Hoffmann 2001)
- 

**199. *Crocidura zarudnyi* Ognev, 1928**1928. *Crocidura zarudnyi* Ognev, Mamm. E. Europe, N. Asia, I:341

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**Zarudny's Rock Shrew**

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- Type locality: Near Balochistan border, eastern Iran  
 Synonyms: *Crocidura pergrisea zarudnyi* Ognev, 1928  
 Subspecies: None  
 Distribution: *Crocidura zarudnyi* Ognev, 1928  
 Afghanistan—Badakhshan, Baghlan, Ghazni, Helmand, Kabul, Kandahar, Khowst, Laghman, Lowgar, Nangarhar, Nimruz, Nuristan, Paktiya, Paktika, Parvan, Takhar, Vardak, and Zabol Provinces  
 Pakistan—Balochistan  
 Comments: Earlier included under *C. pergrisea* Miller, 1913 (Ellerman and Morrison-Scott 1951), considered distinct following Hassinger (1973). The name of this taxon was retained so following studies by Spitzenberger (1971) and Hassinger (1970)
-

**200. *Crocidura miya* Phillips, 1929**1929. *Crocidura miya* Phillips, *Spolia Zeylan.*, 15:113

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**Sri Lankan Long-tailed Shrew**

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Type locality:	Moolgama, Kandiyian Hills, Nilambe dt., Sri Lanka
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Crocidura miya</i> Phillips, 1929 Central and Sabaragamuwa Provinces
Comments:	None

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**201. *Crocidura jenkinsi* Chakraborty, 1978**1978. *Crocidura jenkinsi* Chakraborty, *Bull. Zool. Surv. India*, 1:303

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**Jenkin's Andaman Spiny Shrew (Jenkin's Shrew)**

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Type locality:	Wright Myo, South Andaman Isle, Andaman and Nicobar Islands, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Crocidura jenkinsi</i> Chakraborty, 1978 Andaman and Nicobar Islands (known only from type locality and Mount Harriet)
Comments:	Das (1999) collected this taxon from Mount Harriet, Andaman and Nicobar Islands

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**202. *Crocidura hikmiya* Meegaskumbara et al., 2007**2007. *Crocidura hikmiya* Meegaskumbara et al., *Zootaxa*, 1665:19–30

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**Sinharaja Shrew**

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Type locality:	Sinharaja World Heritage Site, Sri Lanka
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Crocidura hikmiya</i> Meegaskumbara et al., 2007 Sinharaja World Heritage Site in Sabaragamuwa and Southern Provinces
Comments:	This species has recently been collected from secondary forest in the Sinharaja Forest Reserve. Meegaskumbara et al. (2007) opine that “it is possible that animals initially identified as <i>Crocidura miya</i> by Wijesinghe and Brooke (2005) from unlogged forest habitat at Sinharaja might be <i>Crocidura hikmiya</i> ”

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**Genus *Feroculus* Kelaart, 1850**

**Long-clawed Shrew**

Monotypic genus, represented by an endemic species in South Asia.

**203. *Feroculus feroculus* (Kelaart, 1850)**

1850. *Sorex feroculus* Kelaart, J. Ceylon Branch Asiatic Soc., 2(5):211

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**Kelaart's Long-clawed Shrew**

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Type locality:	Central Mountains at ca. 828 m, Nuwara Eliya, Sri Lanka
Synonyms:	<i>Sorex feroculus</i> Kelaart, 1850 <i>Sorex macropus</i> Blyth, 1851 <i>Sorex nuwara-ellia</i> Kelaart, 1851 <i>Sorex newara</i> Wagner, 1855 <i>Crocidura macropus</i> Blyth, 1888
Subspecies:	None
Distribution:	Endemic to South Asia <i>Feroculus feroculus</i> (Kelaart, 1850) India—Kerala and Tamil Nadu Sri Lanka—Central and Uva Province
Comments:	For details refer Phillips (1980a), Blanford (1888), and Pradhan et al. (1997)

---

**Genus *Solisorex* Thomas, 1924**

**Sri Lankan Long-clawed Shrew**

This monotypic genus is endemic to Sri Lanka.

**204. *Solisorex pearsoni* Thomas, 1924**

1924. *Solisorex pearsoni* Thomas, Spolia Zeylan., 13:94

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**Pearson's Long-clawed Shrew**

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Type locality:	Hakgala, Nuwara Eliya, Central Highlands, Sri Lanka
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Solisorex pearsoni</i> Thomas, 1924 Central Province
Comments:	None

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## Genus *Suncus* Erhenberg, 1833

### Musk Shrews

#### 205. *Suncus murinus* (Linnaeus, 1766)

1766. *Sorex murinus* Linnaeus, Syst. Nat. 12th ed., I:74

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House Shrew (Asian House Shrew)

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- Type locality: Java, Indonesia
- Synonyms: *Sorex murinus* Linnaeus, 1766  
*Suncus murinus caeruleus* Shaw, 1800  
*Sorex indicus* Geoffroy, I., 1811  
*Sorex sonerratii* Geoffroy, I., 1827  
*Sorex giganteus* Geoffroy, I., 1831  
*Sorex serpentarius* Geoffroy, I., 1831  
*Sorex nemorivagus* Hodgson, 1845  
*Suncus murinus nemorivagus* Hodgson, 1845  
*Sorex soccatus* Hodgson, 1845  
*Suncus murinus soccatus* (Hodgson, 1845)  
*Sorex griffithi* Horsfield, 1851  
*Suncus murinus griffithi* (Horsfield, 1851)  
*Sorex kandianus* Kelaart, 1852  
*Suncus murinus kandianus* (Kelaart, 1852)  
*Sorex heterodon* Blyth, 1855  
*Sorex kelaarti* Blyth, 1855  
*Sorex saturator* Hodgson, 1855  
*Suncus murinus saturator* (Hodgson, 1855)  
*Sorex viridiscens* Blyth, 1859  
*Suncus murinus viridiscens* Blyth, 1859  
*Sorex tytleri* Blyth, 1859  
*Suncus murinus tytleri* (Blyth, 1859)  
*Crocidura (Pachyura) waldemarii* Peters, 1870  
*Crocidura (Pachyura) ceylanica* Peters, 1870  
*Crocidura (Pachyura) media* Peters, 1870  
*Crocidura (Pachyura) fulvocinerea* Anderson, 1877  
*Suncus murinus fulvocinereus* (Anderson, 1877)  
*Suncus murinus sindhensis* Anderson, 1877  
*Crocidura (Pachyura) blythii* Anderson, 1877  
*Crocidura (Pachyura) Sindhensis* Anderson, 1877  
*Crocidura (Pachyura) pealana* Anderson, 1877  
*Crocidura (Pachyura) blanfordii* Anderson, 1877  
*Suncus murinus blanfordii* (Anderson, 1877)  
*Crocidura (Pachyura) rubicunda* Anderson, 1877  
*Crocidura andersoni* Trouessart, 1879  
*Crocidura beddomei* Anderson, 1881  
*Sorex beddomei* (Anderson, 1881)

Subspecies: None

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**House Shrew (Asian House Shrew)**

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- Distribution:** *Suncus murinus* (Linnaeus, 1766)  
 Afghanistan—Konar, Laghman, Nangarhar, and Nuristan Provinces  
 Bangladesh—Dhaka  
 Bhutan Central, East, and West Bhutan  
 India—Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Orissa, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal  
 Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh  
 Nepal—Central, Far-Western, and Mid-Western Nepal  
 Sri Lanka—Central, North Central, North Eastern, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces
- Comments:** Ellerman and Morrison-Scott (1951) listed more than 15 subspecies under this taxon, including Sri Lankan forms *Suncus montanus* Kelaart, 1850 and *Suncus zeylanicus* Phillips, 1928 which are now treated as distinct species (Phillips 1980a; Corbet and Hill 1992; Hutterer 1993). Phillips (1980a) treated *Sorex murinus kandinus* (Kelaart, 1852) as a valid subspecies from Sri Lanka, which has been synonymized with *Suncus murinus* (Linnaeus, 1766) by Corbet and Hill (1992). No subspecies are recognized following Hutterer (2005b)
- 

**206. *Suncus etruscus* (Savi, 1822)**1822. *Sorex etruscus* Savi, Nuovo Giorn. De Litterati, Pisa, 1:60

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**Savi's Pygmy Shrew (Pygmy White-toothed Shrew)**

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- Type locality:** Pisa, Italy
- Synonyms:** *Sorex etruscus* Savi, 1822  
*Sorex perrotteti* Duvernoy, 1842  
*Suncus etruscus perrotteti* (Duvernoy, 1842)  
*Sorex micronyx* Blyth, 1855  
*Suncus etruscus micronyx* (Blyth, 1855)  
*Sorex hodgsoni* Blyth, 1855  
*Sorex atratus* Blyth, 1855  
*Sorex nudipes* Blyth, 1855  
*Suncus etruscus nudipes* (Blyth, 1855)  
*Podihik kura* Deraniyagala, 1958  
*Pachyura assamensis* Anderson, 1873  
*Crocidura (Pachyura) nilagirica* Anderson, 1877  
*Crocidura (Pachyura) pygmaeoides* Anderson, 1877  
*Suncus etruscus pygmaeoides* (Anderson, 1877)  
*Crocidura (Pachyura) travancorensis* Anderson, 1877  
*Crocidura (Pachyura) nitidofulva* Anderson, 1877  
*Suncus etruscus nitidofulva* (Anderson, 1877)
- Subspecies:** None
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**Savi's Pygmy Shrew (Pygmy White-toothed Shrew)**

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- Distribution: *Suncus etruscus* (Savi, 1822)  
 Bhutan—Unknown location  
 India—Andhra Pradesh, Assam, Bihar, Chattisgarh, Gujarat, Harayana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Orissa, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Far-Western, and Western Nepal  
 Pakistan—Punjab, Khyber Pakhtunkhwa, and Sindh  
 Sri Lanka—North Central and Western Provinces
- Comments: The taxon *Podihik kura* Deraniyagala, 1958, earlier included under *fellowes-gordoni* Phillips, 1932 (Phillips 1980a), belongs to *etruscus* Savi, 1832 as it is more similar to this taxon than to *fellowes-gordoni* Phillips, 1932 (Nowak and Paradiso 1983; Hutterer 1993, 2005b)
- 

**207. *Suncus montanus* (Kelaart, 1850)**1850. *Sorex montanus* Kelaart, J. Ceylon Branch Asiat. Soc., 2:211

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**Sri Lanka Highland Shrew**

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- Type locality: Pidurutalagala, Nuwara Eliya, Sri Lanka
- Synonyms: *Sorex montanus* Kelaart, 1850  
*Suncus murinus montanus* (Kelaart, 1850)  
*Sorex ferruginea* Kelaart, 1850  
*Sorex ferrugineus* Kelaart, 1850  
*Sorex kelaarti* Blyth, 1855
- Subspecies: None
- Distribution: Endemic to Sri Lanka  
*Suncus montanus* (Kelaart, 1850)  
 Central and Sabaragamuwa Province
- Comments: Earlier included under *Suncus murinus* (Linnaeus, 1766) (Lindsay 1929; Ellerman and Morrison-Scott 1951). Considered distinct from *Suncus murinus* (Corbet and Hill 1991, 1992; Hutterer 1993; Ruedi et al. 1996; Meegaskumbura and Schneider 2008). Until recently the Indian and Sri Lankan forms were included under one taxon *montanus* however studies by Meegaskumbura and Schneider (2008) show that Sri Lankan and Indian forms are genetically distinct hence the available name *niger* was given to the Indian forms while the nomen *montanus* was given to represent the Sri Lankan forms
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**208. *Suncus niger* (Horsfield, 1851)**1851. *Sorex niger* Horsfield, Cat. Mamm. Mus. E. India Co., 135

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**India Highland Shrew**

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- Type locality: Madras, India  
 Synonyms: *Sorex niger* Horsfield, 1851  
*Suncus murinus niger* (Horsfield, 1851)  
*Suncus niger malabaricus* Lindsay, 1929
- Subspecies: None  
 Distribution: Endemic to India  
*Suncus niger* (Horsfield, 1851)  
 Karnataka, Kerala, and Tamil Nadu
- Comments: Earlier included under *Suncus murinus* (Linnaeus, 1766) (Lindsay 1929; Ellerman and Morrison-Scott 1951). See comments under *Suncus montanus*
- 

**209. *Suncus stoliczkanus* (Anderson, 1877)**1877. *Crocidura (Pachuyra) stoliczkanus* Anderson, J. Asiat. Soc. Bengal, 46:270

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**Anderson's Shrew**

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- Type locality: Bombay, Maharashtra, India  
 Synonyms: *Crocidura (Pachuyra) stoliczkanus* Anderson, 1877  
*Crocidura (Pachuyra) subfulva* Anderson, 1877  
*Crocidura (Pachuyra) bidiana* Anderson, 1877  
*Crocidura leucogenys* Dobson, 1888  
*Suncus stoliczkanus leucogenys* (Dobson, 1888)
- Subspecies: None  
 Distribution: Endemic to South Asia  
*Suncus stoliczkanus* (Anderson, 1877)  
 Bangladesh—Unknown location  
 India—Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, and Uttar Pradesh  
 Nepal—Eastern and Mid-Western Nepal  
 Pakistan—Punjab and Sindh
- Comments: None
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**210. *Suncus dayi* (Dobson, 1888)**1888. *Crocidura dayi* Dobson, Ann. Mag. Nat. Hist., [6]1:428

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**Day's Shrew**

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- Type locality: Trichur (now Thrissur), Cochin (now Kochi) in Kerala, India  
 Synonyms: *Crocidura dayi* Dobson, 1888  
 Subspecies: None
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**Day's Shrew**

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- Distribution: Endemic to India  
*Suncus dayi* (Dobson, 1888)  
Karnataka, Kerala, and Tamil Nadu
- Comments: Earlier known only from a few localities in Western Ghats in South India. However, recently seven specimens of this species were collected from Nilgiri Hills. There is some confusion regarding the type locality with varied views by Dobson (1888), Blanford (1888), and Blanford (1891) and all of them gave varied localities from Madras Presidency, India (Jenkins et al. 1998)
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**211. *Suncus zeylanicus* Phillips, 1928**1928. *Suncus zeylanicus* Phillips, *Spolia Zeylan.*, 14:313

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**Ceylon Jungle Shrew (Sri Lankan Shrew)**

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- Type locality: Gonagama Estate, Kitulgala, Sri Lanka
- Synonyms: *Suncus murinus zeylanicus* Phillips, 1928
- Subspecies: None
- Distribution: Endemic to Sri Lanka  
*Suncus zeylanicus* Phillips, 1928  
Central, Sabaragamuwa, and Western Provinces
- Comments: Earlier treated under *Suncus murinus* (Linnaeus, 1766) (Ellerman and Morrison-Scott 1951), this taxon is considered distinct based on major morphological differences (Phillips 1980a; McKay 1984; Corbet and Hill 1992; Hutterer 1993, 2005b)
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**212. *Suncus fellowesgordoni* Phillips, 1932**1932. *Suncus fellowes-gordoni* Phillips, *Spolia Zeylan.*, 17:124

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**Ceylon Pygmy Shrew (Sri Lanka Shrew).**

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- Type locality: West Haputale Estate, Ohiya, C Province, Sri Lanka
- Synonyms: *Suncus fellowes-gordoni* Phillips, 1932
- Subspecies: None
- Distribution: Endemic to Sri Lanka  
*Suncus fellowesgordoni* Phillips, 1932  
Central Province
- Comments: Earlier included under *Suncus etruscus* Savi, 1822 (Ellerman and Morrison-Scott 1951; Corbet 1978; Corbet and Hill 1991, 1992) presently treated distinct (Hutterer 1993, 2005b)
-

**Subfamily Soricinae Fischer, 1817**

**Genus *Anourosorex* Milne-Edwards, 1870**

**Mole Shrew**

**213. *Anourosorex squamipes* Milne-Edwards, 1872**

1872. *Anourosorex squamipes* Milne-Edwards, Rech. Hist. Nat. Mamm., 264. pl. 38, fig. 1, pl 38A, figs I-Ij

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Mole Shrew (Chinese Short-tailed Shrew)

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Type locality:	Sichuan Prov., Moupin, China
Synonyms:	None
Subspecies:	None
Distribution:	<i>Anourosorex squamipes</i> Milne-Edwards, 1872 India—Mizoram
Comments:	See Mandal et al. (1995)

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**214. *Anourosorex assamensis* Anderson, 1875**

1872. *Anourosorex assamensis* Anderson, Ann. Mag. Nat. Hist., ser. 4, 16:282

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Assam Mole Shrew

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Type locality:	Subsasugu, Assam
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Anourosorex assamensis</i> Anderson, 1875 Assam, Manipur, Meghalaya, and Mizoram
Comments:	Earlier included under <i>Anourosorex squamipes</i> Milne-Edwards, 1872 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992), this taxon is presently considered distinct (Blanford 1888; Allen 1938; Mandal and Das 1969; Mandal et al. 1995; Motokawa and Lin 2002; Hutterer 2005b)

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**215. *Anourosorex schmidi* Petter, 1963**

1963. *Anourosorex schmidi* Petter, Mammalia 27:444

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Giant Mole Shrew

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Type locality:	Bombdila, Arunachal Pradesh, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to South Asia <i>Anourosorex schmidi</i> Petter, 1963 Bhutan—Central Bhutan India—Arunachal Pradesh and Sikkim
Comments:	Earlier considered subspecies of <i>A. squamipes</i> (Petter 1963; Hutterer 1993; Mandal and Das 1969; Motokawa and Lin 2002). However, based on cranial and morphological studies this taxon is now considered distinct (Saha 1978; Hutterer 2005b)

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**Genus *Chimarrogale* Anderson, 1877**

**Water Shrew**

One species belonging to this genus occurs in South Asia. Additionally, the taxon *Chimarrogale styani* de Winton, 1899 might possibly occur in Northeastern and eastern most parts of Arunachal Pradesh where it occurs sympatrically with *Chimarrogale himalayica* (Gray, 1842).

**216. *Chimarrogale himalayica* (Gray, 1842)**

1842. *Crossopus himalayicus* Gray, Ann. Mag. Nat. Hist., [1]10:261

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Himalayan Water Shrew (Elegant Water Shrew)

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Type locality:	Chamba, NE Punjab (now Himachal Pradesh), India
Synonyms:	<i>Crossopus himalayicus</i> Gray, 1842 <i>Chimarrogale platycephala himalayica</i> (Gray, 1842)
Subspecies:	None
Distribution:	<i>Chimarrogale himalayica</i> (Gray, 1842) Bhutan—No exact location known India—Arunachal Pradesh, Manipur, Mizoram, Himachal Pradesh, Jammu and Kashmir, Sikkim, and West Bengal Nepal—Eastern Nepal
Comments:	Ellerman and Morrison-Scott (1951) and Harrison (1958) included <i>Chimarrogale himalayica</i> (Gray, 1842) as subspecies of <i>Chimarrogale platycephala</i> (Temminck, 1842). Jones and Mumford (1971) and Corbet (1978) did not consider the two taxa distinct. However, Hoffmann (1987), Ohdachi et al. (2006), and Motokawa et al. (2006) showed them to be distinct species based on detailed taxonomic and molecular study

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**Genus *Episoriculus* Ellerman and Morrison-Scott, 1951**

**Brown-toothed Shrews**

Earlier treated as subgenus of *Soriculus* Blyth, 1854 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Hoffmann 1985 [1986], 1987), raised to generic level by Hutterer (1994) following Van Valen (1967) and Repenning (1967). Also see Motokawa and Lin (2005) and Motokawa et al. (2008).

**217. *Episoriculus caudatus* (Horsfield, 1851)**

1851. *Sorex caudatus* Horsfield, Cat. Mamm. Mus. E. India Co.,:135

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Hodgson's Brown-toothed Shrew

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Type locality:	Darjeeling, West Bengal, India
Synonyms:	<i>Sorex caudatus</i> Horsfield, 1851 <i>Soriculus caudatus</i> (Horsfield, 1851) <i>Sorex gracilicauda</i> Anderson, 1877

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**Hodgson's Brown-toothed Shrew**

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- Subspecies: None
- Distribution: *Episoriculus caudatus* (Horsfield, 1851)  
India—Sikkim, Uttarakhand, and West Bengal  
Nepal—Central, Eastern, Far-Western, and Mid-Western Nepal
- Comments: May possibly also occur in Bhutan. Motokawa et al. (2008) separated forms smaller-sized forms included under this taxon as separate species based on karyotypic differences
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**218. *Episoriculus macrurus* (Blanford, 1888)**1888. *Soriculus macrurus* Blanford, Fauna Brit. India Mamm. I:231.

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**Arboreal Brown-toothed Shrew (Long-tailed Mountain Shrew)**

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- Type locality: Darjeeling, West Bengal, India
- Synonyms: *Sorex macrurus* Hodgson, 1863 (*nomen nudum*)  
*Soriculus macrurus* Blanford, 1888
- Subspecies: None
- Distribution: *Episoriculus macrurus* (Blanford, 1888)  
India—Sikkim and West Bengal  
Nepal—Unknown location
- Comments: Ellerman and Morrison-Scott (1951) synonymized it with *Soriculus leucops* (Hodgson, 1855) following Osgood (1932). Corbet and Hill (1992) and Hutterer (1993) treat it as distinct species following Hoffmann (1985) [1986]
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**219. *Episoriculus sacratus* (Thomas, 1911)**1911. *Soriculus sacratus* Thomas, Abstr. Proc. Zool. Soc., London, 165

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**Sichuan Brown-toothed Shrew**

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- Type locality: Omei Shan, Szechuan, China
- Synonyms: *Soriculus sacratus* Thomas, 1911  
*Episoriculus caudatus sacratus* (Thomas, 1911)  
*Soriculus caudatus umbrinus* G. Allen, 1923  
*Soriculus caudatus soluensis* Gruber, 1969
- Subspecies: *Episoriculus sacratus umbrinus* (G. Allen, 1923)  
*Episoriculus sacratus soluensis* (Gruber, 1969)
- Distribution: *Episoriculus sacratus umbrinus* (G. Allen, 1923)  
India—Assam  
*Episoriculus sacratus soluensis* (Gruber, 1969)  
Endemic to South Asia  
India—Sikkim  
Nepal—Eastern Nepal
- Comments: Ellerman and Morrison-Scott (1951) synonymized it with *Episoriculus caudatus* (Horsfield, 1851), while Hutterer (2005b) recognized *sacratus* and *umbrinus* as distinct subspecies of *Episoriculus caudatus*. Motokawa et al. (2008) recognized the taxon *sacratus* as distinct from *caudatus* based on smaller size and distinct karyotype and recognized three subspecies of which the above listed two occur in South Asia
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**220. *Episoriculus baileyi* (Thomas, 1914)**1914. *Sorex baileyi* Thomas, Jour. Bombay Nat. Hist. Soc., 22:683

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**Long-tailed Brown-toothed Shrew**

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Type locality:	Tsu River, Mishmi Hills, North of Assam (now in Arunachal Pradesh)
Synonyms:	<i>Sorex baileyi</i> Thomas, 1914 <i>Soriculus caudatus baileyi</i> (Thomas, 1914) <i>Episoriculus caudatus baileyi</i> (Thomas, 1914) <i>Soriculus gruberi</i> Weigel, 1969
Subspecies:	None
Distribution:	<i>Episoriculus baileyi</i> Thomas, 1914 India—Arunachal Pradesh, Assam, Manipur, Sikkim, and West Bengal Nepal—Central, Eastern, Mid-Western, and Western Nepal
Comments:	Earlier this taxon was included as subspecies of <i>Episoriculus caudatus</i> (Ellerman and Morrison-Scott 1951) or <i>Episoriculus leucops</i> (Hoffman 1985 [1986], Hutterer 2005). Corbet and Hill (1992) opine that the forms representing the taxon <i>baileyi</i> are often confused with <i>Soriculus macrurus</i> Blanford, 1888. Motokawa and Lin (2005) upgraded this taxon to species level based on morphological differences

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**Genus *Nectogale* Milne-Edwards, 1870****Web-footed (or Elegant) Water Shrew**

Monotypic genus represented by a species that is restricted to Oriental region and shows affinity to high altitude mountain streams (Mitchell 1975).

**221. *Nectogale elegans* Milne-Edwards, 1870**1870. *Nectogale elegans* Milne-Edwards, C. R. Acad. Sci. Paris, 70:341

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**Web-footed Shrew (Elegant Water Shrew)**

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Type locality:	Moupin, Sichuan, China
Synonyms:	<i>Nectogale sikhimensis</i> de Winton and Styan, 1899 <i>Nectogale elegans sikhimensis</i> de Winton and Styan, 1899
Subspecies:	None
Distribution:	<i>Nectogale elegans</i> Milne-Edwards, 1870 Bhutan—Central and West Bhutan India—Sikkim Nepal—Eastern Nepal
Comments:	Earlier treated as a subspecies (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992), the taxon <i>sikhimensis</i> de Winton and Styan, 1899, is considered a synonym of the present taxon (Hoffmann 1987; Hutterer 1993)

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## Genus *Sorex* Linnaeus, 1758

### Long-tailed Shrews

This genus is represented by three species in the region. Additionally, the taxon *Sorex buchariensis* Ognev, 1921 may possibly occur in Afghanistan.

#### 222. *Sorex minutus* Linnaeus, 1766

1766. *Sorex minutus* Linnaeus, Syst. Nat. 12th ed., I:73

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##### Eurasian Pygmy Shrew (Pygmy Shrew)

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Type locality:	Bernal, Western Siberia
Synonyms:	<i>Sorex thibetanus</i> Kastschenko, 1905 ( <i>nomen dubium</i> )
Subspecies:	<i>Sorex minutus minutus</i> Linnaeus, 1766
Distribution:	<i>Sorex minutus minutus</i> Linnaeus, 1766 India—Jammu and Kashmir (including Disputed Kashmir) Nepal—Western Nepal Pakistan—Khyber Pakhtunkhwa
Comments:	Ellerman and Morrison-Scott (1951) doubtfully treated <i>planiceps</i> Miller, 1911 as subspecies of <i>Sorex minutus</i> Linnaeus, 1766. Corbet and Hill (1992) following Hoffmann (1987) included <i>planiceps</i> under <i>Sorex thibetanus</i> Kastschenko, 1905. The specimen described as <i>Sorex thibetanus</i> was found to be those akin to <i>Sorex minutus</i> , thus, invalidating the former name and being considered as <i>nomen dubium</i> (Hutterer 1979). Hoffmann (1996b), Hutterer (1993, 2005b) treated <i>Sorex minutus</i> Linnaeus, 1766 and <i>Sorex planiceps</i> Miller, 1911 as distinct species based on the latter's distinctly larger cranial measurements

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#### 223. *Sorex bedfordiae* Thomas, 1911

1911. *Sorex bedfordiae* Thomas, Abstr. Proc. Zool. Soc., Lond., 1911(90):3

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##### Lesser Striped Shrew (Lesser Stripe-backed Shrew)

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Type locality:	Omisian, Sichuan, China
Synonyms:	<i>Sorex cylindricauda bedfordiae</i> Thomas, 1911 <i>Sorex bedfordiae nepalensis</i> Weigel, 1969
Subspecies:	None
Distribution:	<i>Sorex bedfordiae</i> Thomas, 1911 Nepal—Eastern Nepal
Comments:	Earlier included under <i>Sorex cylindricauda</i> Milne-Edwards, 1872 (Ellerman and Morrison-Scott 1951), the taxon <i>Sorex bedfordiae</i> Thomas, 1911, is presently treated as distinct (Corbet 1978; Hoffmann 1987; Corbet and Hill 1992; Hutterer 1993, 2005b). May possibly also occur in Bhutan

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**224. *Sorex planiceps* Miller, 1911**1911. *Sorex planiceps* Miller, Proc. Biol. Soc. Wash., 24:242

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**Kashmir Pygmy Shrew (Kashmir Shrew)**

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- Type locality: Dachin, Khistwar, Kashmir, India  
 Synonyms: None  
 Subspecies: None  
 Distribution: *Sorex planiceps* Miller, 1911  
                   India—Jammu and Kashmir (including Disputed Kashmir)  
                   Pakistan—Khyber Pakhtunkhwa  
 Comments: Ellerman and Morrison-Scott (1951) treated this taxon under *Sorex minutus* Linnaeus, 1766, while Dolgov and Hoffmann (1977) and Hoffmann (1987) listed it as a subspecies of *Sorex thibetanus* Kastschenko, 1905. However, Hutterer (1979) retained it as a distinct species from either *Sorex minutus* Linnaeus, 1766 or *Sorex thibetanus* Kastschenko, 1905 (now considered a *nomen dubium*) based on larger skull measurements (Hutterer 1993, 2005b)
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**225. *Sorex excelsus* Allen, 1923**1923. *Sorex excelsus* Allen, Am. Mus. Novit., 100:4

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**Highland Shrew (Lofty Shrew)**

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- Type locality: Summit of Hoshan, Peitai, South of Chungtein, Yunnan, China  
 Synonyms: *Sorex araneus excelsus* Allen, 1923  
 Subspecies: None  
 Distribution: *Sorex excelsus* Allen, 1923  
                   Nepal—Eastern Nepal  
 Comments: Ellerman and Morrison-Scott (1951) treated *excelsus* Allen, 1923 as a subspecies of *Sorex araneus* Linnaeus, 1758, whereas, Corbet (1978) treated it as a possible subspecies of *Sorex asper* Thomas, 1914. Hutterer (1993) following Hoffmann (1987) treated this taxon as a distinct species and further remarked that the specimen from Nepal reported by Agrawal and Chakraborty (1971) possibly belonged to this species
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## Genus *Soriculus* Blyth, 1854

### Himalayan Shrews

#### 226. *Soriculus nigriscens* (Gray, 1842)

1842. *Corsira nigriscens* Gray, Ann. Mag. Nat. Hist., [Ser]10:261

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#### Sikkim Large-clawed Shrew

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- Type locality: Darjeeling, West Bengal, India
- Synonyms: *Corsira nigriscens* Gray, 1842  
*Sorex aterrimus* Blyth, 1842 (*nomen nudum*)  
*Sorex sikimensis* Hodgson, 1849 (*nomen nudum*)  
*Sorex oligurus* Gray, 1863 (*nomen nudum*)  
*Sorex holosericeus* Gray, 1863 (*nomen nudum*)  
*Soriculus minor* Dobson, 1890  
*Soriculus radulus* Thomas, 1922  
*Soriculus nigriscens radulus* Thomas, 1922  
*Soriculus nigriscens nigriscens* (Gray, 1842)  
*Soriculus nigriscens caurinus* Hinton, 1922  
*Soriculus nigriscens pahari* Hinton, 1922  
*Soriculus nigriscens centralis* Hinton, 1922
- Subspecies: *Soriculus nigriscens nigriscens* (Gray, 1842)  
*Soriculus nigriscens minor* Dobson, 1890
- Distribution: *Soriculus nigriscens nigriscens* (Gray, 1842)  
 India—Arunachal Pradesh, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Far-Western Nepal  
*Soriculus nigriscens minor* Dobson, 1890  
 Endemic to South Asia  
 Bhutan—Central Bhutan  
 India—Assam, Manipur
- Comments: Hoffmann (1985) [1986] opined that the forms belonging to the taxon *radulus* Thomas, 1922 are distinctly smaller, hence represent a distinct subspecies. However, the nomen *minor* Dobson, 1890 is accepted as it antedates *radulus* Thomas, 1922 (Motokawa 2003; Hutterer 2005b)
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## Family Talpidae Fischer, 1817

### Genus *Euroscaptor* Miller, 1940

#### South Asian Moles

Earlier considered either as a subgenus of or synonym of *Talpa* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951). However, chromosomal, allozymic, and morphological studies by Yates and Moore (1990), Abe et al. (1991), Shinohara et al. (2003) established this taxon as distinct from *Talpa* Linnaeus, 1758.

**227. *Euroscaptor micrura* (Hodgson, 1841)**1841. *Talpa micrurus* Hodgson, Calcutta J. Nat. Hist., 2:221

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**Himalayan Mole**

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Type locality:	Central and northern hills of Nepal
Synonyms:	<i>Talpa micrurus</i> Hodgson, 1841 <i>Talpa micrura</i> Hodgson, 1841 <i>Talpa cryptura</i> Blyth, 1843 <i>Talpa macrura</i> Hodgson, 1858
Subspecies:	None
Distribution:	<i>Euroscaptor micrura</i> (Hodgson, 1841) Bhutan—Central Bhutan India—Arunachal Pradesh, Assam, Mizoram, Meghalaya, Sikkim, and West Bengal Nepal—Eastern Nepal
Comments:	May possibly occur in Bangladesh

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**Genus *Parascaptor* Gill, 1875****Indian Mole**

Earlier synonymized to or treated as sub genus of the genus *Talpa* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951). Corbet and Hill (1992) doubtfully opine to separate this genus while Abe et al. (1991), Hutterer (1993, 2005b), and Motokawa (2004) recognized it as a distinct genus.

**228. *Parascaptor leucura* (Blyth, 1850)**1850. *Talpa leucura* Blyth, J. Asiat. Soc. Bengal, 19:215, pl 4, fig. 1

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**White-tailed Mole (Assamese Mole, Indian Mole)**

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Type locality:	Cherrapunji in Khasi Hills, Assam (now Meghalaya), India
Synonyms:	<i>Talpa leucura</i> Blyth, 1850 <i>Talpa micrura leucura</i> Blyth, 1850
Subspecies:	None
Distribution:	<i>Parascaptor leucura</i> (Blyth, 1850) Bangladesh—Chittagong and Sylhet India—Arunachal Pradesh, Assam, and Meghalaya
Comments:	None

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**Order Chiroptera Blumenbach, 1779**

Simmons (1998) and Simmons and Geisler (1998), Jones et al. (2002) recognized two suborders under order Chiroptera, namely, Megachiroptera Dobson, 1875 and Microchiroptera Dobson, 1875. The latter suborder further comprises two infraorders (Yinochiroptera and Yangochiroptera). However, recent molecular studies (Hutcheon et al. 1998; Hooper and Van Den Bussche 2001; Kirsch et al. 1998; Murphy et al.

2001a, b; Springer et al. 2001; Teeling et al. 2000, 2002, 2003; Van Den Bussche and Hooper 2000) indicate otherwise. Some studies (see Hutcheon et al. 1998; Teeling et al. 2000, 2002, 2003) suggest that Yinochiroptera is a sister group of Megachiroptera and Springer et al. (2001), Hulva and Horáček (2002), and Teeling et al. (2002, 2003) erected a new suborder Yinpterochiroptera that includes Pteropodidae, Rhinolophidae, Hipposideridae, Megadermatidae, Rhinopomatidae, while Emballonuridae is included under Yangochiroptera (Teeling et al. 2002, 2003). Additionally, the status of superfamilies (as proposed by Simmons 1998 and Simmons and Geisler 1998) has also been evaluated based on molecular data (Van Den Bussche and Hooper 2000, 2001; Van Den Bussche et al. 2002, 2003; Hooper et al. 2003; Teeling et al. 2003). However, till date no complete classification of chiroptera based on molecular analyses occurs and those that are traditionally being followed (McKenna and Bell 1997; Simmons 1998, 2005; Simmons and Geisler 1998) are based on morphological characters. We too follow the traditional classification wherein no inclusions above family level, excepting inclusion of two suborders, have taken place.

### Suborder Megachiroptera Dobson, 1875

#### Family Pteropodidae Gray, 1821

Though earlier workers recognized subfamilies under Family Pteropodidae Gray, 1821 (Bergmans 1997; Corbet and Hill 1980, 1992; Hill and Smith 1984; Koopman 1993, 1994; McKenna and Bell 1997), presently those are not in agreement with the recent molecular phylogeny studies, hence no subfamilies or tribes are recognized pending thorough taxonomic revision (Simmons 2005).

#### Genus *Cynopterus* Cuvier, F., 1824

##### Short-nosed Fruit Bats

This genus was partly reviewed by Hill and Thonglongya (1972) and Hill (1983), while Kitchener and Maharadatunkamsi (1991) reviewed the *brachyotis* species group.

#### 229. *Cynopterus sphinx* (Vahl, 1797)

1797. *Vespertilio sphinx* Vahl, Skr. Nat. Selsk. Copenhagen, 4(1):123

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##### Greater Short-nosed Fruit Bat

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- Type locality: Tranquebar, Madras, India  
 Synonyms: *Vespertilio sphinx* Vahl, 1797  
*Vespertilio fibulatus* Vahl, 1797  
*Pteropus pusillus* Geoffroy, E., 1803  
*Pteropus marginatus* Geoffroy, E., 1810  
*Pachysoma brevicaudatum* Temminck, 1837 (not *Pachysoma brevicaudatum* Geoffroy, I., 1828)  
*Cynopterus marginatus* var. (*Pachysoma scherzeri*) Zelebor, 1869  
*Cynopterus brachyotis scherzeri* Zelebor, 1869  
*Cynopterus marginatus* var. *elliotti* Gray, 1870  
*Cynopterus angulatus* Miller, 1898  
*Cynopterus brachyotis angulatus* Miller, 1898  
*Cynopterus sphinx gangeticus* Andersen, 1910
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 Greater Short-nosed Fruit Bat
 

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- Subspecies: *Cynopterus sphinx sphinx* (Vahl, 1797)  
*Cynopterus sphinx scherzeri* Zelebor, 1869  
*Cynopterus sphinx angulatus* Miller, 1898
- Distribution: *Cynopterus sphinx sphinx* (Vahl, 1797)  
 Bangladesh—Dhaka, Khulna, and Rajshahi  
 India—Andhra Pradesh, Andaman Islands, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Eastern, Far-Western, and Western Nepal  
 Pakistan—Sindh  
 Sri Lanka—Central, Eastern, North Central, Sabaragamuwa, Southern, Uva, and Western Provinces  
*Cynopterus sphinx scherzeri* Zelebor, 1869  
 Endemic to India, Andaman and Nicobar Islands (only in Nicobar Islands)  
*Cynopterus sphinx angulatus* Miller, 1898  
 Bhutan—Central and West Bhutan
- Comments: Some authorities listed *schерzeri* Zelebor, 1869 under *Cynopterus brachyotis* (Müller, 1838) (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992), while some treated it as synonym of *Cynopterus sphinx* (Vahl, 1797) (Hill and Thonglongya 1972; Hill 1983; Koopman 1993; Bates and Harrison 1997). Simmons (2005) opines that it might prove to be distinct species
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**230. *Cynopterus brachyotis* (Müller, 1838)**1838. *Pachysoma brachyotis* Müller, Tijdschr. Nat. Gesch. Physiol., 5:146

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 Lesser Short-nosed Fruit Bat (Lesser Dog-faced Fruit Bat)
 

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- Type locality: Dewei River, Borneo
- Synonyms: *Pachysoma brachyotis* Müller, 1838  
*Cynopterus marginatus* var. *ceylonensis* Gray, 1871  
*Cynopterus brachysoma* Dobson, 1871  
*Cynopterus marginatus* var. *andamanensis* Dobson, 1873
- Subspecies: *Cynopterus brachyotis brachyotis* (Müller, 1838)  
*Cynopterus brachyotis brachysoma* Dobson, 1871  
*Cynopterus brachyotis ceylonensis* Gray, 1871
- Distribution: *Cynopterus brachyotis brachyotis* (Müller, 1838)  
 India—Arunachal Pradesh, Assam, Meghalaya, and Nagaland  
*Cynopterus brachyotis brachysoma* Dobson, 1871  
 Endemic to India, Andaman and Nicobar Islands (only on Andaman Islands)  
*Cynopterus brachyotis ceylonensis* Gray, 1871  
 Endemic to South Asia  
 India—Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, and Tamil Nadu  
 Sri Lanka—Central and Uva Provinces
- Comments: Earlier included *angulatus* Miller, 1898 (Ellerman and Morrison-Scott 1951). The taxon *brachysoma* Dobson, 1871 is sometimes included under *Cynopterus sphinx* (Vahl, 1797) (Bates and Harrison 1997). Reviewed by Hill and Thonglongya (1972), Kitchener and Maharadatunkamsi (1991), and Mapatuna et al. (2002)
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### Genus *Eonycteris* Dobson, 1873

#### Dawn Bats

#### 231. *Eonycteris spelaea* (Dobson, 1871)

1871. *Macroglossus spelaeus* Dobson, *Asiat. Soc. Bengal*, 105, 106 pp

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Lesser Dawn Bat (Common Dawn Bat)

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Type locality:	Tenasserim, Burma (Myanmar)
Synonyms:	<i>Macroglossus spelaeus</i> Dobson, 1871
Subspecies:	<i>Eonycteris spelaea spelaea</i> (Dobson, 1871)
Distribution:	<i>Eonycteris spelaea spelaea</i> (Dobson, 1871) India—Andaman Islands, Andhra Pradesh, Assam, Karnataka, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tamil Nadu, and Uttarakhand Nepal—Central Nepal
Comments:	Recently recorded from Tamil Nadu (Vanitharani et al. 2005)

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### Genus *Latidens* Thonglongya, 1972

#### Salim Ali's Fruit Bat

Monotypic genus, endemic to India.

#### 232. *Latidens salimalii* Thonglongya, 1972

1972. *Latidens salimalii* Thonglongya, *Jour. Bombay Nat. Hist. Soc.*, 69:151

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Salim Ali's Fruit Bat

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Type locality:	High Wavy Mountains, Tamil Nadu, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Latidens salimalii</i> Thonglongya, 1972 Kerala and Tamil Nadu
Comments:	In the Western Ghats of South India

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### Genus *Macroglossus* F. Cuvier, 1824

#### Long-nosed Fruit Bats

#### 233. *Macroglossus sobrinus* Andersen, 1911

1911. *Macroglossus minimus sobrinus* Andersen, *Ann. Mag. Nat. Hist.*, (8)3:642

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Hill Long-tongued Fruit Bat (Greater Long-nosed Fruit Bat)

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Type locality:	Mt. Igari, Perak, Malaysia
Synonyms:	<i>Macroglossus minimus sobrinus</i> Andersen, 1911
Subspecies:	<i>Macroglossus sobrinus sobrinus</i> Andersen, 1911

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**Hill Long-tongued Fruit Bat (Greater Long-nosed Fruit Bat)**

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- Distribution: *Macroglossus sobrinus sobrinus* Andersen, 1911  
India—Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, and West Bengal
- Comments: Earlier treated as subspecies of *Macroglossus minimus* E. Geoffroy, 1810 (Ellerman and Morrison-Scott 1951). Considered distinct by Hill (1983), Corbet and Hill (1992), Koopman (1993), Bates and Harrison (1997), and Simmons (2005)
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**Genus *Megaerops* Peters, 1865****Tailless Fruit Bats****234. *Megaerops ecaudatus* (Temminck, 1837)**1837. *Pachysoma ecaudatum* Temminck, Mon. Mamm. 2:94

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**Temminck's Fruit Bat (Temminck's Tailless Fruit Bat)**

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- Type locality: Padang, West Sumatra
- Synonyms: *Pachysoma ecaudatum* Temminck, 1837
- Subspecies: None
- Distribution: *Megaerops ecaudatus* Temminck, 1837  
India—Arunachal Pradesh
- Comments: Presence of *Megaerops ecaudatus* (Temminck, 1837) from North East India (Saha 1984) has been doubted (Hill 1983; Bates and Harrison 1997). Analysis of morphometric and cranial measurements of specimens from India indicates a lot of variation among individuals and populations of *Megaerops* species in India and only molecular analysis will establish the presence or absence of this species in India (Srinivasulu et al. *in prep*). This species may possibly occur in India
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**235. *Megaerops niphanae* Yenbutra and Fenten, 1983**1983. *Megaerops niphanae* Yenbutra and Fenten, Senckenberg Biol., 64:2

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**Ratanaworabhan's Fruit Bat (Northern Tailless Fruit Bat)**

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- Type locality: Sakaerat Environmental Research Station, Amphoe Pak Thong Chai, Nakon Ratchasima Province, Thailand
- Synonyms: None
- Subspecies: None
- Distribution: *Megaerops niphanae* Yenbutra and Fenten, 1983  
India—Arunachal Pradesh, Manipur, Mizoram, Nagaland, and West Bengal
- Comments: None
- 

**Genus *Pteropus* Brisson, 1762****Flying Foxes**

Corbet and Hill (1992), Bates and Harrison (1997), and Molur et al. (2002) listed five species in South Asia while, Simmons (2005) listed four species. *Pteropus vampyrus* (Linnaeus, 1758) has been excluded in this work due to lack of published and validated records. Species belonging to three species groups (*subniger*, *vampyrus*, and *melanotus*) occur in South Asia.

**236. *Pteropus giganteus* (Brünnich, 1782)**1782. *Vespertilio gigantea* Brünnich, Dyrenes Historie., 1:45

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**Indian Flying Fox**

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- Type locality: Bengal, India
- Synonyms: *Vespertilio gigantea* Brünnich, 1782  
*Pteropus medius* Temminck, 1825  
*Pteropus edwardsi* I. Geoffroy, 1828  
*Pteropus leucocephalus* Hodgson, 1835  
*Pteropus assamensis* McClelland, 1839  
*Pteropus ruvicollis* (misspelt *rubricollis* or *rubicollis*) Ogilby, 1840  
*Pteropus kelaarti* Gray, 1871  
*Pteropus ariel* Allen, 1908
- Subspecies: *Pteropus giganteus giganteus* (Brünnich, 1782)  
*Pteropus giganteus leucocephalus* Hodgson, 1835  
*Pteropus giganteus ariel* Allen, 1908
- Distribution: *Pteropus giganteus giganteus* (Brünnich, 1782)  
 Bangladesh—Barisal, Dhaka, Rajshahi, and Sylhet  
 India—Andhra Pradesh, Andaman Islands, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Nagaland, Orissa, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh, and West Bengal  
 Nepal—Eastern Nepal  
 Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh  
 Sri Lanka—Central, Eastern, North Central, Sabaragamuwa, Southern, Uva, and Western Provinces  
*Pteropus giganteus leucocephalus* Hodgson, 1835  
 Bhutan—Southern Bhutan  
 India—Arunachal Pradesh, Assam, Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), Uttarakhand, and West Bengal  
 Nepal—Central Nepal  
*Pteropus giganteus ariel* Allen, 1908  
 Endemic to Maldives, Addu Atoll, Ari, Haddunmatti, Mulaku, and Nilandu South
- Comments: Belongs to the *vampyrus* species group. Earlier included *Pteropus intermedius* Andersen, 1908 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992) and listed under *Pteropus vampyrus* (Linnaeus, 1758) (Kloss 1916, 1919; Hill 1975; Lekagul and McNeely 1977; Honacki et al. 1982; Racey 1992; Koopman 1993; Nowak 1999). This taxon is conspecific to *Pteropus vampyrus* (Linnaeus, 1758) (Corbet and Hill 1992; Bates and Harrison 1997; Horáček et al. 2000; Simmons 2005)
-

**237. *Pteropus hypomelanus* Temminck, 1853**1853. *Pteropus hypomelanus* Temminck, Esquisses Zool. sur la Cote de Guine, 61 pp

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**Variable Flying Fox (Island Flying Fox)**

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Type locality:	Ternate Island, Molucca Isls, Indonesia
Synonyms:	<i>Pteropus geminorum</i> Miller, 1903 <i>Pteropus satyrus</i> Andersen, 1908
Subspecies:	<i>Pteropus hypomelanus geminorum</i> Miller, 1903 <i>Pteropus hypomelanus satyrus</i> Andersen, 1908 <i>Pteropus hypomelanus maris</i> Allen, 1936
Distribution:	<i>Pteropus hypomelanus geminorum</i> Miller, 1903 India—Andaman Islands <i>Pteropus hypomelanus satyrus</i> Andersen, 1908 Endemic to India, Andaman and Nicobar Islands (only on Narcondam Island and North Andaman Islands) <i>Pteropus hypomelanus maris</i> Allen, 1936 Endemic to Maldives, Addu Atoll
Comments:	Belongs to the <i>subniger</i> species group. Earlier the taxon <i>satyrus</i> Andersen, 1908 was listed under <i>Pteropus melanotus</i> Blyth, 1863 (Corbet and Hill 1992; Koopman 1993). Jones and Kunz (2000) validated <i>maris</i> Allen, 1936 as its subspecies

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**238. *Pteropus melanotus* Blyth, 1863**1863. *Pteropus melanotus* Blyth, Cat. Mamm. Mus. Asiat. Soc. Calcutta, 20 pp

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**Black-eared Flying Fox (Blyth's Flying Fox)**

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Type locality:	Nicobar Island, India
Synonyms:	<i>Pteropus edulis</i> Blyth, 1846 (not of E. Geoffroy, 1810) <i>Pteropus nicobaricus</i> Fitzinger, 1861 ( <i>nomen nudum</i> ) <i>Pteropus nicobaricus</i> Zelebor, 1869 <i>Pteropus tytleri</i> Dobson, 1874 ( <i>nomen nudum</i> ) <i>Pteropus tytleri</i> Mason, 1908
Subspecies:	<i>Pteropus melanotus melanotus</i> Blyth, 1863 <i>Pteropus melanotus tytleri</i> Dobson, 1874
Distribution:	<i>Pteropus melanotus melanotus</i> Blyth, 1863 Endemic to India, Andaman and Nicobar Islands (only on Nicobar Islands) <i>Pteropus melanotus tytleri</i> Dobson, 1874 Endemic to India, Andaman and Nicobar Islands (only on Andaman Islands)
Comments:	Belongs to the <i>melanotus</i> species group. Earlier included <i>satyrus</i> Andersen, 1908 (Andersen 1912; Hill 1967, 1971a; Corbet and Hill 1992; Koopman 1993). Close relationship between taxa <i>tytleri</i> Dobson, 1874 and <i>satyrus</i> Andersen, 1908, and <i>melanotus</i> Blyth, 1863 and <i>hypomelanus</i> Temminck, 1853 was indicated (Hill 1971a; Saha 1980; Bates and Harrison 1997)

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**239. *Pteropus faunulus* Miller, 1902**1902. *Pteropus faunulus* Miller, Proc. US. Natl. Mus., 24:785

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**Nicobar Flying Fox**

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Type locality:	Car Nicobar Islands, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to India <i>Pteropus faunulus</i> Miller, 1902 Nicobar Islands of the Andaman and Nicobar Islands
Comments:	Belongs to the <i>subniger</i> species group. Earlier listed under <i>Pteropus hypomelanus</i> Temminck, 1853 (Andersen 1908; Ellerman and Morrison-Scott 1951; Hill 1967). Clearly distinct from <i>hypomelanus</i> Temminck, 1853 in bearing softer and larger pelage and smaller dentition (Bates and Harrison 1997)

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**Genus *Rousettus* Gray, 1821****Rousettus**

Corbet and Hill (1992) listed two subgenera namely *Rousettus* Gray, 1821 and *Boneia* Jentink, 1879. Koopman (1993) listed three subgenera, namely, *Rousettus* Gray, 1821, *Lissonycteris* Andersen, 1912, and *Stenonycteris* Gray, 1871, while Bergmans (1994, 1997), Peterson et al. (1995), Juste et al. (1997), and Simmons (2005) listed three subgenera *Rousettus* Gray, 1821, *Stenonycteris* Gray, 1871, and *Boneia* Jentink, 1879. Subgenus *Rousettus* Gray, 1821 pertains to South Asia.

**240. *Rousettus aegyptiacus* (E. Geoffroy, 1810)**1810. *Pteropus aegyptiacus* E. Geoffroy, Ann. Mus. Hist. Nat. Paris, 15:96

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**Egyptian Rousette (Egyptian Fruit Bat)**

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Type locality:	Giza, Egypt
Synonyms:	<i>Pteropus aegyptiacus</i> E. Geoffroy, 1810 <i>Rousettus arabicus</i> Anderson and de Winton, 1902
Subspecies:	<i>Rousettus aegyptiacus arabicus</i> Anderson and de Winton, 1902
Distribution:	<i>Rousettus aegyptiacus arabicus</i> Anderson and de Winton, 1902 Pakistan—Balochistan and Sindh
Comments:	Belongs to the subgenus <i>Rousettus</i> Gray, 1821. Earlier treated as a distinct species (Ellerman and Morrison-Scott 1951), the taxon <i>arabicus</i> Anderson and deWinton, 1902 is considered subspecies of <i>Rousettus aegyptiacus</i> (E. Geoffroy, 1810) (Hayman and Hill 1971; Corbet 1978; Harrison and Bates 1991; Corbet and Hill 1992; Bergmans 1994; Koopman 1993; Bates and Harrison 1997; Horáček et al. 2000; Simmons 2005)

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**241. *Rousettus leschenaultii* (Desmarest, 1820)**1820. *Pteropus leschenaultii* Desmarest, Mamalogie, in Encyclop. Method., 1:110

## Leschenault's Rousette

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Type locality:	Pondicherry, India
Synonyms:	<i>Pteropus leschenaultii</i> Desmarest, 1820 <i>Pteropus pyrivorus</i> Hodgson, 1835 <i>Cynopterus marginatus</i> Gray, 1843 <i>Cynopterus affinis</i> Gray, 1843 <i>Pteropus seminudus</i> Kelaart, 1850 <i>Eleutherura fusca</i> Gray, 1870 <i>Xantharpyia seminuda</i> Gray, 1870 <i>Rousettus seminudus</i> (Gray, 1870) <i>Cynonycteris infuscata</i> Peters, 1873
Subspecies:	<i>Rousettus leschenaultii leschenaultii</i> (Desmarest, 1820) <i>Rousettus leschenaultii seminudus</i> (Kelaart, 1850)
Distribution:	<i>Rousettus leschenaultii leschenaultii</i> (Desmarest, 1820) Bangladesh—Chittagong, Dhaka, Khulna, and Sylhet Bhutan—Central and Western Bhutan India—Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Nagaland, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal Nepal—Central and Western Nepal Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh <i>Rousettus leschenaultii seminudus</i> (Kelaart, 1850) Endemic to Sri Lanka, Central, Eastern, North Central, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces
Comments:	Belongs to subgenus <i>Rousettus</i> Gray, 1821. Earlier treated as a distinct species (Ellerman and Morrison-Scott 1951), the taxon <i>seminudus</i> Kelaart, 1850, is considered subspecies of <i>Rousettus leschenaultii</i> (Desmarest, 1820) (Sinha 1970; Corbet and Hill 1992; Koopman 1993; Simmons 2005). Specimens from Tripura (North East India) accorded to <i>Rousettus amplexicaudatus</i> (Geoffroy, 1810) by Agrawal and Bhattacharyya (1977) were assigned to <i>Rousettus leschenaultii</i> (Desmarest, 1820) by Rookmaaker and Bergmans (1981)

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**Genus *Sphaerias* Miller, 1906**

**Blanford's Fruit Bat**

Monotypic genus.

**242. *Sphaerias blanfordi* (Thomas, 1891)**

1891. *Cynopterus blanfordi* Thomas, Ann. Mus. Civ. Stor. Nat. Geneva, (2)10:884, 921, 922

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Blanford's Fruit Bat

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Type locality:	Leito, Cheiba, Karin Hills, Myanmar
Synonyms:	<i>Cynopterus blanfordi</i> Thomas, 1891
Subspecies:	None
Distribution:	<i>Sphaerias blanfordi</i> (Thomas, 1891) Bhutan—West Bhutan India—Arunachal Pradesh, Mizoram, Sikkim, Uttarakhand, and West Bengal Nepal—Eastern Nepal
Comments:	None

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**Suborder Microchiroptera Dobson, 1875**

**Family Rhinolophidae Bell, 1836**

Earlier included forms belonging to Family Hipposideridae (Ellerman and Morrison-Scott 1951). Monogeneric family.

**Genus *Rhinolophus* Lacépède, 1799**

**Horseshoe Bats**

Twenty species belonging to ten species groups (namely, *euryale* species group, *ferrumequinum* species group, *hipposideros* species group, *landeri* species group, *megaphyllus* species group, *pearsonii* species group, *philippinensis* species group, *pusillus* species group, *rouxii* species group, and *trifoliatus* species group) are represented in South Asia. Species groups following Csorba et al. (2003).

**243. *Rhinolophus ferrumequinum* (Schreber, 1774)**

1774. *Vespertilio ferrum-equinum* Schreber, Die Säugethiere, 1:174, pl. 62, upper figs

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Greater Horseshoe Bat

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Type locality:	France
Synonyms:	<i>Vespertilio ferrum-equinum</i> Schreber, 1774 <i>Rhinolophus tragatus</i> Hodgson, 1835 <i>Rhinolophus brevitarus</i> Blyth, 1863 ( <i>nomen nudum</i> ) <i>Rhinolophus ferrum-equinum proximus</i> Andersen, 1905 <i>Rhinolophus ferrum-equinum regulus</i> Andersen, 1905 <i>Rhinolophus ferrumequinum regulus</i> Andersen, 1905

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Greater Horseshoe Bat

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- Subspecies: *Rhinolophus ferrumequinum tragatus* Hodgson, 1835  
*Rhinolophus ferrumequinum proximus* Andersen, 1905
- Distribution: *Rhinolophus ferrumequinum tragatus* Hodgson, 1835  
 India—Arunachal Pradesh, Himachal Pradesh, Nagaland, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central, Eastern, and Western Nepal  
*Rhinolophus ferrumequinum proximus* Andersen, 1905  
 Afghanistan—Balkh, Faryab, Helmand, Kabul, Laghman, Maimana, and Samangan Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir)  
 Pakistan—Balochistan and Khyber Pakhtunkhwa
- Comments: Belongs to *ferrumequinum* species group. The taxon *regulus* Andersen, 1905 treated as distinct subspecies of this taxon (Ellerman and Morrison-Scott 1951) has been synonymized with the taxon *tragatus* Hodgson, 1835 (Sinha 1999). May possibly occur in Bangladesh and Bhutan
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**244. *Rhinolophus hipposideros* (Bechstein, 1800)**1800. *Vespertilio hipposideros* Bechstein, In Pennant, Allgemeine Ueber. Vierfuss. Thiere, 2:629

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Lesser Horseshoe Bat

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- Type locality: France
- Synonyms: *Vespertilio hipposideros* Bechstein, 1800  
*Rhinolophus midas* Andersen, 1905
- Subspecies: *Rhinolophus hipposideros midas* Andersen, 1905
- Distribution: *Rhinolophus hipposideros midas* Andersen, 1905  
 Afghanistan—Nangarhar and Zabol Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir)  
 Pakistan—Balochistan
- Comments: Belongs to *hipposideros* species group. Felten et al. (1977) revised this species and its associated forms. Bates and Harrison (1997) considered forms from South Asia to belong to *Rhinolophus hipposideros midas* Andersen, 1905 following Andersen (1918) and Topál (1975)
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**245. *Rhinolophus affinis* Horsfield, 1823**1823. *Rhinolophus affinis* Horsfield, Zool. Res. Java., part 6, p. 6 (un no.) of *Rhinolophus larvatus* acct. and pl. fig. a, b

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Intermediate Horseshoe Bat

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- Type locality: Java, Indonesia
- Synonyms: *Rhinolophus andamanensis* Dobson, 1872
- Subspecies: *Rhinolophus affinis andamanensis* Dobson, 1872  
*Rhinolophus affinis himalayanus* Andersen, 1905
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**Intermediate Horseshoe Bat**

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- Distribution: *Rhinolophus affinis andamanensis* Dobson, 1872  
Endemic to India, Andaman and Nicobar Islands (only on Andaman Islands).
- Rhinolophus affinis himalayanus* Andersen, 1905  
Bangladesh—Sylhet  
Bhutan—West Bhutan  
India—Arunachal Pradesh, Assam, Sikkim, Uttarakhand, and West Bengal  
Nepal—Central and Western Nepal
- Comments: Belongs to *megaphyllus* species group. Although Corbet and Hill (1992) and Bates and Harrison (1997) did not include the taxon *andamanensis* Dobson, 1872 as distinct subspecies, we follow Sinha (1973) in treating it as distinct subspecies. May possibly occur in Sri Lanka (Blyth 1863; Sinha 1973; Bates and Harrison 1997; Simmons 2005). A record from Tamil Nadu, southern India by Vanitharani et al. 2005 needs verification
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**246. *Rhinolophus pusillus* Temminck, 1834**1834. *Rhinolophus pusillus* Temminck, Tijdschr. Nat. Gesch. Physiol., 1:29

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**Least Horseshoe Bat**

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- Type locality: Java, Indonesia
- Synonyms: *Rhinolophus minor* Horsfield, 1823 (preoccupied by *Vespertilio ferrumequinum minor* Kerr, 1792)  
*Rhinolophus gracilis* Andersen, 1905  
*Rhinolophus blythi* Andersen, 1918  
*Rhinolophus cornutus blythi* Andersen, 1918
- Subspecies: *Rhinolophus pusillus gracilis* Andersen, 1905  
*Rhinolophus pusillus blythi* Andersen, 1918
- Distribution: *Rhinolophus pusillus gracilis* Andersen, 1905  
Endemic to India, Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu  
*Rhinolophus pusillus blythi* Andersen, 1918  
India—Arunachal Pradesh, Assam, Meghalaya, Sikkim, Uttarakhand, and West Bengal  
Nepal—Central and Western Nepal
- Comments: Belongs to *pusillus* species group. The taxon *blythi* Andersen, 1918 was earlier listed as subspecies of *Rhinolophus cornutus* Temminck, 1834 (Ellerman and Morrison-Scott 1951; Sinha 1973) that was considered conspecific to *Rhinolophus pusillus* Temminck, 1834 (Hill and Yoshiyuki 1980; Yoshiyuki 1990; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Csorba et al. 2003; Simmons 2005). Recently reported from Tamil Nadu (Vanitharani et al. 2005)
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**247. *Rhinolophus trifolius* Temminck, 1834**1834. *Rhinolophus trifolius* Temminck, Tijdschr. Nat. Gesch. Physiol., 1:24

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**Trefoil Horseshoe Bat**

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Type locality:	Bantam, Java, Indonesia
Synonyms:	None
Subspecies:	<i>Rhinolophus trifolius trifolius</i> Temminck, 1834
Distribution:	<i>Rhinolophus trifolius trifolius</i> Temminck, 1834 India—Assam and West Bengal
Comments:	Belongs to <i>trifolius</i> species group. May possibly also occur in Bhutan

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**248. *Rhinolophus luctus* Temminck, 1835**1835. *Rhinolophus luctus* Temminck, Mon. Mamm., 2:24, pl. 30

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**Great Woolly Horseshoe Bat (Woolly Horseshoe Bat)**

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Type locality:	Java, Indonesia
Synonyms:	<i>Rhinolophus perniger</i> Hodgson, 1843
Subspecies:	<i>Rhinolophus luctus perniger</i> Hodgson, 1843
Distribution:	<i>Rhinolophus luctus perniger</i> Hodgson, 1843 Bangladesh—Chittagong and Sylhet India—Andhra Pradesh, Assam, Madhya Pradesh, Meghalaya, Nagaland, Uttarakhand, Sikkim, and West Bengal Nepal—Central and Eastern Nepal
Comments:	Belongs to <i>trifolius</i> species group. Earlier included <i>Rhinolophus beddomei</i> Andersen, 1905 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Koopman 1993). Simmons (2005) inclusion of Sri Lanka in distribution is possibly based on taxon <i>sobrinus</i> Andersen, 1918, which is presently under <i>Rhinolophus beddomei</i> Andersen, 1905. May possibly also occur in Bhutan

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**249. *Rhinolophus rouxii* Temminck, 1835**1835. *Rhinolophus rouxii* Temminck, Mon. Mamm., 2:306

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**Rufous Horseshoe Bat**

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Type locality:	Pondicherry and Calcutta, India
Synonyms:	<i>Rhinolophus rubidus</i> Kelaart, 1850 <i>Rhinolophus fulvidus</i> Blyth, 1851 (error for <i>rubidus</i> Kelaart, 1850) <i>Rhinolophus cinerascens</i> Kelaart, 1852 <i>Rhinolophus rammanika</i> Kelaart, 1852 <i>Rhinolophus petersii</i> Dobson, 1872
Subspecies:	<i>Rhinolophus rouxii rouxii</i> Temminck, 1835 <i>Rhinolophus rouxii rubidus</i> Kelaart, 1850

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**Rufous Horseshoe Bat**

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- Distribution: *Rhinolophus rouxii rouxii* Temminck, 1835  
India—Andhra Pradesh, Chhattisgarh, Goa, Karnataka, Kerala, Maharashtra, Orissa, Puducherry, Tamil Nadu, and West Bengal  
*Rhinolophus rouxii rubidus* Kelaart, 1850  
Endemic to Sri Lanka, Central, Eastern, North Central, Sabaragamuwa, Uva, and Western Provinces
- Comments: Belongs to *rouxii* species group. The taxon *petersii* Dobson, 1872 was included under *Rhinolophus thomasi* Andersen, 1905 (Ellerman and Morrison-Scott 1951). However, Sinha (1973), Corbet and Hill (1992), Koopman (1993), Bates and Harrison (1997), and Simmons (2005) synonymized *petersii* Dobson, 1872 with *Rhinolophus rouxii* Temminck, 1835. Earlier included *sinicus* Andersen, 1905, see comments therein
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**250. *Rhinolophus lepidus* Blyth, 1844**1844. *Rhinolophus lepidus* Blyth, J. Asiat. Soc. Bengal, 13:486

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**Blyth's Horseshoe Bat**

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- Type locality: Calcutta (uncertain), India
- Synonyms: *Rhinolophus monticola* Andersen, 1905
- Subspecies: *Rhinolophus lepidus lepidus* Blyth, 1844  
*Rhinolophus lepidus monticola* Andersen, 1905
- Distribution: *Rhinolophus lepidus lepidus* Blyth, 1844  
Bangladesh—Chittagong, Dhaka, Khulna, Sylhet, and Rajshahi  
India—Andhra Pradesh, Bihar, Delhi, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal  
*Rhinolophus lepidus monticola* Andersen, 1905  
Afghanistan—Faryab, Kabul, Nangarhar, Parvan, and Zabol Provinces  
India—Assam, Himachal Pradesh, Meghalaya, Mizoram, Nagaland, Uttarakhand, and West Bengal  
Nepal—Central and Eastern Nepal  
Pakistan—Khyber Pakhtunkhwa
- Comments: Belongs to *pusillus* species group. Earlier considered a distinct species (Ellerman and Morrison-Scott 1951; Sinha 1973), the taxon *monticola* Andersen, 1905, is now treated as subspecies of *Rhinolophus lepidus* Blyth, 1844 (Hill and Yoshiyuki 1980; Das 1986a; Koopman 1993; Bates and Harrison 1997; Simmons 2005). May possibly also occur in Bhutan
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**251. *Rhinolophus macrotis* Blyth, 1844**1844. *Rhinolophus macrotis* Blyth, J. Asiat. Soc. Bengal, 13:485

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**Big-eared Horseshoe Bat**

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- Type locality: Nepal
- Synonyms: None
- Subspecies: *Rhinolophus macrotis macrotis* Blyth, 1844  
*Rhinolophus macrotis topali* Csorba and Bates, 1995
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**Big-eared Horseshoe Bat**

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- Distribution: *Rhinolophus macrotis macrotis* Blyth, 1844  
 Bangladesh—Chittagong  
 India—Arunachal Pradesh, Meghalaya, Uttarakhand, and West Bengal  
 Nepal—Central and Western Nepal  
*Rhinolophus macrotis topali* Csorba and Bates, 1995  
 Endemic to Pakistan, Khyber Pakhtunkhwa
- Comments: Belongs to *philippinensis* species group. May possibly also occur in Bhutan
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**252. *Rhinolophus mitratus* Blyth, 1844**1844. *Rhinolophus mitratus* Blyth, J. Asiat. Soc. Bengal, 13:483

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**Mitred Horseshoe Bat**

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- Type locality: Chaibasa, Orissa (now in Jharkhand), India  
 Synonyms: None  
 Subspecies: None  
 Distribution: Endemic to India  
*Rhinolophus mitratus* Blyth, 1844  
 Jharkhand (known only from the type locality)
- Comments: Belongs to *trifoliatus* species group. Earlier treated distinct (Ellerman and Morrison-Scott, 1951) then treated under *Rhinolophus philippinensis* Waterhouse, 1843 (Dobson 1876; Tate and Archbold 1939; Corbet and Hill 1992). Sinha (1973) opined it to be more similar to *Rhinolophus pearsonii* Hodgson, 1851. Csorba et al. (2003) treat this taxon as *incertae sedis*
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**253. *Rhinolophus subbadius* Blyth, 1844**1844. *Rhinolophus subbadius* Blyth, J. Asiat. Soc. Bengal, 13:486

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**Little Nepalese Horseshoe Bat**

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- Type locality: Nepal  
 Synonyms: *Rhinolophus subbadius* Hodgson, 1841 (*nomen nudum*)  
*Rhinolophus garoensis* Dobson, 1872
- Subspecies: None
- Distribution: *Rhinolophus subbadius* Blyth, 1844  
 Bangladesh—Sylhet  
 India—Arunachal Pradesh and Meghalaya  
 Nepal—Central and Western Nepal
- Comments: Belongs to *pusillus* species group. Bates and Harrison (1997) opine that the holotype of this taxon is missing and the forms representing *garoensis* Dobson, 1872 correspond to that of *Rhinolophus pusillus* Temminck, 1834. The taxonomic status of this taxon needs to be re-evaluated until such period the taxon *garoensis* Dobson, 1872 is included under the present taxon (Simmons 2005). May possibly also occur in Bhutan
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**254. *Rhinolophus pearsonii* Horsfield, 1851**1851. *Rhinolophus pearsonii* Horsfield, Cat. Mamm. Mus. E. India Co., p. 33

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**Pearson's Horseshoe Bat**

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Type locality:	Darjeeling, West Bengal, India
Synonyms:	None
Subspecies:	<i>Rhinolophus pearsonii pearsonii</i> Horsfield, 1851
Distribution:	<i>Rhinolophus pearsonii pearsonii</i> Horsfield, 1851 Bangladesh—No exact location Bhutan—West Bhutan India—Assam, Meghalaya, Mizoram, Sikkim, Uttarakhand, and West Bengal Nepal—Central and Eastern Nepal
Comments:	Belongs to <i>pearsonii</i> species group. Earlier considered similar to <i>Rhinolophus yunanensis</i> Dobson, 1872 (Andersen 1905; Tate and Archbold 1939; Tate 1943; Ellerman and Morrison-Scott 1951), now treated distinct (Hill 1986; Yoshiyuki 1990; Simmons 2005)

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**255. *Rhinolophus blasii* Peters, 1866**1866. *Rhinolophus blasii* Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, 1866:17

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**Blasius's Horseshoe Bat**

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Type locality:	Italy
Synonyms:	None
Subspecies:	<i>Rhinolophus blasii meyerohemi</i> Felten, 1977
Distribution:	<i>Rhinolophus blasii meyerohemi</i> Felten, 1977 Afghanistan—Faryab, Kabul, Kandahar, Laghman, and Parvan Provinces Pakistan—Punjab
Comments:	Belongs to <i>landeri</i> species group

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**256. *Rhinolophus yunanensis* Dobson, 1872**1872. *Rhinolophus yunanensis* Dobson, J. Asiat. Soc. Bengal, 41, 2:336

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**Dobson's Horseshoe Bat**

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Type locality:	Hotha, Yunnan, China
Synonyms:	None
Subspecies:	None
Distribution:	<i>Rhinolophus yunanensis</i> Dobson, 1872 India—Arunachal Pradesh and Mizoram
Comments:	Belongs to <i>pearsonii</i> species group. Earlier synonymized under <i>Rhinolophus pearsonii</i> Horsfield, 1851 (Ellerman and Morrison-Scott 1951), presently treated distinct (Lekagul and McNeely 1977; Hill 1986; Yoshiyuki 1990; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005). May possibly also occur in Bhutan

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**257. *Rhinolophus mehelyi* Matschie, 1902**1902. *Rhinolophus mehelyi* Matschie, Sitzb. Ges. Naturf. Fr. Berlin, p. 225

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**Mehely's Horseshoe Bat**

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Type locality:	Bucharest, Romania
Synonyms:	None
Subspecies:	<i>Rhinolophus mehelyi mehelyi</i> Matschie, 1902
Distribution:	<i>Rhinolophus mehelyi mehelyi</i> Matschie, 1902 Afghanistan—No exact location
Comments:	Belongs to <i>euryale</i> species group. Afghanistan record is following Koopman (1993) and Simmons (2005)

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**258. *Rhinolophus beddomei* Andersen, 1905**1905. *Rhinolophus beddomei* Andersen, Ann. Mag. Nat. Hist., 16:253

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**Beddome's Horseshoe Bat (Lesser Woolly Horseshoe Bat)**

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Type locality:	Wynaad, Kerala, India
Synonyms:	<i>Rhinolophus luctus beddomei</i> Andersen, 1905 <i>Rhinolophus luctus sobrinus</i> Andersen, 1918
Subspecies:	<i>Rhinolophus beddomei beddomei</i> Andersen, 1905 <i>Rhinolophus beddomei sobrinus</i> Andersen, 1918
Distribution:	Endemic to South Asia <i>Rhinolophus beddomei beddomei</i> Andersen, 1905 Endemic to India, Andhra Pradesh, Karnataka, Kerala, Maharashtra, and Tamil Nadu <i>Rhinolophus beddomei sobrinus</i> Andersen, 1918 Endemic to Sri Lanka, Central, North Central, Southern, and Western Provinces
Comments:	Belongs to <i>trifoliatius</i> species group. Earlier included under <i>Rhinolophus luctus</i> Temminck, 1835 (Ellerman and Morrison-Scott 1951), presently considered distinct (Topál and Csorba 1992; Bates and Harrison 1997; Hendrichsen et al. 2001a; Simmons 2005). The taxon <i>sobrinus</i> Andersen, 1918 was earlier included under <i>Rhinolophus luctus</i> Temminck, 1835 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Koopman 1993)

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**259. *Rhinolophus sinicus* Andersen, 1905**1905. *Rhinolophus rouxii sinicus* Andersen, Proc. Zool. Soc. London, 2:98

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**Chinese Horseshoe Bat**

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- Type locality: Chinteh, Anhwei, China  
 Synonyms: *Rhinolophus rouxii sinicus* Andersen, 1905  
 Subspecies: *Rhinolophus sinicus sinicus* Andersen, 1905  
 Distribution: *Rhinolophus sinicus sinicus* Andersen, 1905  
                   India—Arunachal Pradesh, Himachal Pradesh, Meghalaya, Mizoram,  
                   Nagaland, Sikkim, Uttarakhand, and West Bengal  
                   Nepal—Central and Eastern Nepal  
 Comments: Belongs to *rouxii* species group. Earlier treated under *Rhinolophus rouxii*  
 Temminck, 1835 (Ellerman and Morrison-Scott 1951; Corbet and Hill  
 1992; Bates and Harrison 1997), now considered distinct species  
 (Thomas 2000; Srinivasulu and Srinivasulu 2001; Simmons 2005)
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**260. *Rhinolophus cognatus* Andersen, 1906**1906. *Rhinolophus cognatus* Andersen, Ann. Mus. Stor. Nat. Genova, (3) 2:181

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**Andaman Horseshoe Bat**

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- Type locality: South Andaman Island, India  
 Synonyms: *Rhinolophus famulus* Andersen, 1918  
 Subspecies: *Rhinolophus cognatus cognatus* Andersen, 1906  
                   *Rhinolophus cognatus famulus* Andersen, 1918  
 Distribution: Endemic to India  
                   *Rhinolophus cognatus cognatus* Andersen, 1906  
                   Andaman and Nicobar Islands (only on South Andaman Island)  
                   *Rhinolophus cognatus famulus* Andersen, 1918  
                   Andaman and Nicobar Islands (only on Central Andaman and  
                   Narcondam Islands)  
 Comments: Belongs to *pusillus* species group. Reviewed by Bates and Harrison (1997)  
 and Csorba (1997)
- 

**261. *Rhinolophus bocharicus* Kastchenko and Akimov, 1917**1917. *Rhinolophus bocharicus* Kastchenko and Akimov, Annu. Mus. Zool. Acad. St. Petersb., 22:221

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**Central Asian Horseshoe Bat**

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- Type locality: Murgab River, Turkmenistan  
 Synonyms: None  
 Subspecies: None  
 Distribution: *Rhinolophus bocharicus* Kastchenko and Akimov, 1917  
                   Afghanistan—Balkh Province  
 Comments: Belongs to *ferrumequinum* species group. May also occur in North  
 Pakistan (Simmons 2005), but no locality reported so far
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**262. *Rhinolophus shortridgei* K. Andersen, 1918**1918. *Rhinolophus lepidus shortridgei* K. Andersen, Ann. Mag. Nat. Hist., ser. 9, 2:376, 377

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**Shortridge's Horseshoe Bat**

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Type locality:	Irrawaddy River, Pagan (=Bagan), Burma
Synonyms:	<i>Rhinolophus lepidus shortridgei</i> K. Andersen, 1918
Subspecies:	None
Distribution:	<i>Rhinolophus shortridgei</i> K. Andersen, 1918 India—West Bengal
Comments:	Belongs to <i>pusillus</i> species group. Earlier included under <i>Rhinolophus lepidus</i> Blyth, 1844 (Ellerman and Morrison-Scott 1951), presently considered distinct (Csorba 2002; Csorba et al. 2003; Simmons 2005). There is a specimen from Falta, West Bengal in Hungarian Natural History Museum (Csorba et al. 2003)

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**Family Hipposideridae Lydekker, 1891**

Representatives belonging to four genera namely, *Hipposideros* Gray, 1831, *Asellia* Gray, 1838, *Coelops* Blyth, 1848, and *Triaenops* Dobson, 1871 occur in South Asia.

**Genus *Asellia* Gray, 1838****Trident Leaf-nosed Bats****263. *Asellia tridens* (E. Geoffroy, 1813)**1813. *Rhinolophus tridens* E. Geoffroy, Ann. Mus. Hist. Nat. Paris, 20:265

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**Geoffroy's Trident Leaf-nosed Bat (Trident Bat)**

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Type locality:	Near Luqor, Qena, Egypt
Synonyms:	<i>Rhinolophus tridens</i> E. Geoffroy, 1813 <i>Phyllorhina tridens</i> var. <i>murraiana</i> Andersen, 1881
Subspecies:	<i>Asellia tridens murraiana</i> (Andersen, 1881)
Distribution:	<i>Asellia tridens murraiana</i> (Andersen, 1881) Afghanistan—Helmand, Kandahar, and Nimruz Provinces Pakistan—Balochistan and Sindh
Comments:	None

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## Genus *Coelops* Blyth, 1848

### Tail-less Leaf-nosed Bats

#### 264. *Coelops frithii* Blyth, 1848

1848. *Coelops frithii* Blyth, J. Asiat. Soc. Bengal, 17:251

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East Asian Tail-less Leaf-nosed Bat (Tail-less Leaf-nosed Bat)

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Type locality:	Sunderbans, Bengal, India
Synonyms:	None
Subspecies:	<i>Coelops frithii frithii</i> Blyth, 1848
Distribution:	<i>Coelops frithii frithii</i> Blyth, 1848 Bangladesh—Khulna India—Meghalaya and West Bengal
Comments:	None

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## Genus *Hipposideros* Gray, 1831

### Leaf-nosed Bats

Thirteen species belonging to five species groups (namely, *bicolor* species group, *armiger* species group, *larvatus* species group, *speoris* species group and *diadema* species group) (Tate 1941a; Koopman 1994) are represented in South Asia.

#### 265. *Hipposideros speoris* (Schneider, 1800)

1800. *Vespertilio speoris* Schneider, In Schreber, Die Säugethiere, pl. 59 b

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Schneider's Leaf-nosed Bat (Schneider's Roundleaf Bat)

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Type locality:	Madras, Tamil Nadu, India
Synonyms:	<i>Vespertilio speoris</i> Schneider, 1800 <i>Rhinolophus dukhunensis</i> Sykes, 1831 <i>Hipposideros apiculatus</i> Gray, 1838 <i>Hipposideros penicillatus</i> Gray, 1838 <i>Hipposideros templetonii</i> Kelaart, 1850 <i>Hipposideros aureus</i> Kelaart, 1853 <i>Hipposideros blythi</i> Kelaart, 1853 <i>Hipposideros speoris pulchellus</i> Andersen, 1918
Subspecies:	None
Distribution:	Endemic to South Asia <i>Hipposideros speoris</i> (Schneider, 1800) India—Andhra Pradesh, Gujarat, Goa, Karnataka, Kerala, Maharashtra, Orissa, Tamil Nadu, and Uttarakhand Sri Lanka—Central, Eastern, Sabaragamuwa, Southern, Uva, and Western Provinces
Comments:	Belongs to <i>speoris</i> species group. Earlier treated as subspecies (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992), the taxon <i>pulchellus</i> Andersen, 1918, is now synonymized with <i>Hipposideros speoris</i> (Schneider, 1800) (Sinha 1973; Koopman 1993; Bates and Harrison 1997; Simmons 2005)

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**266. *Hipposideros diadema* (E. Geoffroy, 1813)**1813. *Rhinolophus diadema* E. Geoffroy, Ann. Mus. Hist. Nat. Paris, 20:263, pl. 6

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**Diadem Leaf-nosed Bat (Diadem Roundleaf Bat)**

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Type locality:	Timor Island, Indonesia
Synonyms:	<i>Rhinolophus diadema</i> E. Geoffroy, 1813 <i>Phyllorhina nicobarensis</i> Dobson, 1871 <i>Hipposideros nicobarensis</i> (Dobson, 1871)
Subspecies:	<i>Hipposideros diadema nicobarensis</i> (Dobson, 1871)
Distribution:	<i>Hipposideros diadema nicobarensis</i> (Dobson, 1871) Endemic to India, Andaman and Nicobar Islands (only on Nicobar Islands)
Comments:	Belongs to <i>diadema</i> species group. The taxon <i>nicobarensis</i> Dobson, 1871 was earlier considered distinct species (Ellerman and Morrison-Scott 1951)

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**267. *Hipposideros larvatus* (Horsfield, 1823)**1823. *Rhinolophus larvatus* Horsfield, Zool. Res. Java, part 6, pl. 3

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**Intermediate Leaf-nosed Bat (Intermediate Roundleaf Bat)**

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Type locality:	Java, Indonesia
Synonyms:	<i>Rhinolophus larvatus</i> Horsfield, 1823 <i>Phyllorhina leptophylla</i> Dobson, 1874
Subspecies:	<i>Hipposideros larvatus leptophyllus</i> (Dobson, 1874)
Distribution:	<i>Hipposideros larvatus leptophyllus</i> (Dobson, 1874) Bangladesh—Chittagong and Sylhet India—Andaman and Nicobar Islands, Arunachal Pradesh, Assam, and Meghalaya
Comments:	Belongs to <i>larvatus</i> species group. May possibly also occur in Bhutan. The Khasian Leaf-nosed Bat <i>Hipposideros khasiana</i> Thabah et al. 2006 is proposed to be distinct from the present taxon based on its low call frequency and length of the ears and forearm that are larger than the present taxon (Thabah et al. 2006)

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**268. *Hipposideros armiger* (Hodgson, 1835)**1835. *Rhinolophus armiger* Hodgson, J. Asiat. Soc. Bengal, 4:699

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**Great Leaf-nosed Bat (Great Himalayan Leaf-nosed Bat, Great Roundleaf Bat)**

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Type locality:	Nepal
Synonyms:	<i>Rhinolophus armiger</i> Hodgson, 1835
Subspecies:	<i>Hipposideros armiger armiger</i> Hodgson, 1835
Distribution:	<i>Hipposideros armiger armiger</i> Hodgson, 1835 India—Assam, Manipur, Meghalaya, Sikkim, Uttarakhand, and West Bengal Nepal—Central, Eastern, and Western Nepal
Comments:	Belongs to <i>armiger</i> species group. May possibly also occur in Bhutan

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**269. *Hipposideros fulvus* Gray, 1838**1838. *Hipposideros fulvus* Gray, Mag. Zool. Bot., 2:492

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**Fulvus Leaf-nosed Bat (Fulvus Roundleaf Bat)**

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- Type locality: Dharwar, Karnataka, India
- Synonyms: *Hipposideros bicolor fulvus* Gray, 1838  
 =*Rhinolophus fulgens* Elliot, 1839  
*Hipposideros murinus* Gray, 1838  
*Phyllorhina aurita* Tomes, 1859  
*Phyllorhina atra* Fitzinger, 1870  
*Hipposideros bicolor pallidus* Andersen, 1918
- Subspecies: *Hipposideros fulvus fulvus* Gray, 1838  
*Hipposideros fulvus pallidus* Andersen, 1918
- Distribution: *Hipposideros fulvus fulvus* Gray, 1838  
 India—Andaman and Nicobar Islands, Andhra Pradesh, Bihar, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, and Tamil Nadu  
 Sri Lanka—North Central, North Western, Sabaragamuwa, and Southern Provinces  
*Hipposideros fulvus pallidus* Andersen, 1918  
 Afghanistan—Laghman and Nangarhar Provinces  
 India—Gujarat, Punjab, Rajasthan, and Uttar Pradesh  
 Nepal—Central Nepal  
 Pakistan—Balochistan, Punjab, and Sindh
- Comments: Belongs to *bicolor* species group. Earlier included under *Hipposideros bicolor* (Temminck, 1834) (Ellerman and Morrison-Scott 1951), now considered distinct (Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005). All earlier records of *Hipposideros bicolor* (Temminck, 1834) from peninsular India are now considered as that of *Hipposideros fulvus* Gray, 1838 (Hill et al. 1986)
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**270. *Hipposideros galeritus* Cantor, 1846**1846. *Hipposideros galeritus* Cantor, J. Asiat. Soc. Bengal, 15:183

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**Cantor's Leaf-nosed Bat (Cantor's Roundleaf Bat)**

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- Type locality: Penang, Malaysia
- Synonyms: *Phyllorhina brachyota* Dobson, 1874  
*Phyllorhina galerita* Dobson, 1876  
*Hipposideros brachyotus* Wroughton, 1913
- Subspecies: *Hipposideros galeritus brachyotis* (Dobson, 1874)
- Distribution: *Hipposideros galeritus brachyotis* (Dobson, 1874)  
 Endemic to South Asia  
 Bangladesh—Chittagong, Dhaka, and Sylhet  
 India—Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, and Maharashtra  
 Sri Lanka—Central, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces
- Comments: Belongs to *bicolor* species group
-

**271. *Hipposideros ater* Templeton, 1848**1848. *Hipposideros ater* Templeton, J. Asiat. Soc. Bengal, 17, 1:252

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**Dusky Leaf-nosed Bat (Dusky Roundleaf Bat)**

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- Type locality: Colombo, Sri Lanka
- Synonyms: *Hipposideros bicolor ater* Templeton, 1848  
*Hipposideros atratus* Kelaart, 1850
- Subspecies: *Hipposideros ater ater* Templeton, 1848  
*Hipposideros ater nallamalaensis* Srinivasulu and Srinivasulu, 2006
- Distribution: *Hipposideros ater ater* Templeton, 1848  
Endemic to South Asia  
India—Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, and Tamil Nadu  
Sri Lanka—Central, Eastern, North Central, Southern, and Western Provinces  
*Hipposideros ater nallamalaensis* Srinivasulu and Srinivasulu, 2006  
Endemic to India, Andhra Pradesh (known only from type locality, see Srinivasulu and Srinivasulu 2006)
- Comments: Belongs to *bicolor* species group. Earlier listed under *Hipposideros bicolor* (Temminck, 1834) (Ellerman and Morrison-Scott 1951), now distinct species (Hill 1963b; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005). Does not include *nicobarulae* Miller, 1902
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**272. *Hipposideros lankadiva* Kelaart, 1850**1850. *Hipposideros lankadiva* Kelaart, J. Sri Lanka Branch Asiat. Soc., 2(2):216

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**Indian Leaf-nosed Bat (Indian Roundleaf Bat)**

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- Type locality: Kandy, Sri Lanka
- Synonyms: *Hipposideros indus* Andersen, 1918  
*Hipposideros indus mixtus* Andersen, 1918  
*Hipposideros lankadiva mixtus* Andersen, 1918  
*Hipposideros indus unitus* Andersen, 1918  
*Hipposideros lankadiva unitus* Andersen, 1918  
*Hipposideros schistaceus* Andersen, 1918
- Subspecies: *Hipposideros lankadiva indus* Andersen, 1918  
*Hipposideros lankadiva lankadiva* Kelaart, 1850
- Distribution: Endemic to South Asia  
*Hipposideros lankadiva lankadiva* Kelaart, 1850  
Endemic to Sri Lanka, Central, Eastern, North Central, Sabaragamuwa, Southern, Uva, and Western Provinces  
*Hipposideros lankadiva indus* Andersen, 1918  
Endemic to South Asia  
Bangladesh—Khulna  
India—Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Orissa, Rajasthan, Tripura, and West Bengal
- Comments: Belongs to *diadema* species group. Though, Ellerman and Morrison-Scott (1951) treated the taxon *schistaceus* Andersen, 1918 distinct, they mentioned that it may represent *lankadiva* Kelaart, 1850. The taxon *schistaceus* Andersen, 1918 is presently synonymized under *Hipposideros lankadiva* Kelaart, 1850 (Bates and Harrison 1997; Sinha 1999; Srinivasulu and Srinivasulu 2001)
-

**273. *Hipposideros cineraceus* Blyth, 1853**1853. *Hipposideros cineraceus* Blyth, J. Asiat. Soc. Bengal, 22:410

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**Ashy Leaf-nosed Bat (Ashy Roundleaf Bat)**

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- Type locality: Near Pind Dadan Khan, Salt Range, Punjab, Pakistan
- Synonyms: *Phyllorhina micropus* Peters, 1872  
*Hipposideros cineraceus micropus* (Peters, 1872)
- Subspecies: *Hipposideros cineraceus cineraceus* Blyth, 1853
- Distribution: *Hipposideros cineraceus cineraceus* Blyth, 1853  
India—Arunachal Pradesh, Assam, Haryana, Meghalaya, Mizoram,  
Tamil Nadu, Uttarakhand, and West Bengal  
Nepal—Central Nepal  
Pakistan—Punjab
- Comments: Belongs to *bicolor* species group. Earlier included *durgadasi* Khajuria, 1970 (Koopman 1993). The specimens referred to *Hipposideros amboinensis* Peters, 1871 by Dobson (1878), Blanford (1891) and Wroughton (1918) reported from different parts of India are accorded to *Hipposideros cineraceus* Blyth, 1853 by Ellerman and Morrison-Scott (1951) and Bhat and Jacob (1990). Bates and Harrison (1997), provisionally shifted all records of this taxon from south India to *Hipposideros ater* Templeton, 1848. May possibly also occur in Bhutan
- 

**274. *Hipposideros nicobarulae* Miller, 1902**1902. *Hipposideros nicobarulae* Miller, U. S. Nat. Mus., 24:781

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**Nicobar Leaf-nosed Bat (Nicobar Roundleaf Bat)**

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- Type locality: Little Nicobar Island, Bay of Bengal
- Synonyms: *Hipposideros ater nicobarulae* Miller, 1902  
*Hipposideros bicolor nicobarulae* Miller, 1902
- Subspecies: None
- Distribution: *Hipposideros nicobarulae* Miller, 1902  
Endemic to India, Nicobar Islands
- Comments: This species belongs to *bicolor* species group. The taxon *nicobarulae* was originally described as a distinct species by Miller in 1902. However, it was included as a subspecies of *bicolor* Temminck, 1834 (Ellerman and Morrison-Scott 1951) and later as a subspecies of *ater* Templeton, 1848 (Hill 1963b; Corbet and Hill 1991; Bates and Harrison 1997; Simmons 2005). Douangboubpha et al. (2011) based on detailed morphometric and cranio-dental studies raise the taxon *nicobarulae* to species level
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**275. *Hipposideros pomona* Andersen, 1918**1918. *Hipposideros pomona* Andersen, Ann. Mag. Nat. Hist., (9), 2:380, 381

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**Andersen's Leaf-nosed Bat (Pomona Leaf-nosed Bat, Pomona Roundleaf Bat)**

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- Type locality: Haleri, Coorg, Mysore, Karnataka, India  
 Synonyms: None  
 Subspecies: *Hipposideros pomona pomona* Andersen, 1918  
*Hipposideros pomona gentilis* Andersen, 1918  
 Distribution: *Hipposideros pomona pomona* Andersen, 1918  
 Endemic to India, Andhra Pradesh, Karnataka, Kerala, Nicobar Islands,  
 and Tamil Nadu  
*Hipposideros pomona gentilis* Andersen, 1918  
 Bangladesh—Sylhet  
 India—Assam, Arunachal Pradesh, Meghalaya, Nagaland, Sikkim, and  
 West Bengal  
 Nepal—Western Nepal  
 Comments: Belongs to *bicolor* species group. This species was listed under  
*Hipposideros bicolor* (Temminck, 1834), but is now considered distinct  
 following Hill et al. (1986). May possibly also occur in Bhutan
- 

**276. *Hipposideros durgadasi* Khajuria, 1970**1970. *Hipposideros cineraceus durgadasi* Khajuria, Mammalia, 34:623

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**Durga Das's Leaf-nosed Bat (Khajuria's Leaf-nosed Bat, Khajuria's Roundleaf Bat)**

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- Type locality: Near Katungi Village, Jabalpur district, Madhya Pradesh  
 Synonyms: *Hipposideros cineraceus durgadasi* Khajuria, 1970  
 Subspecies: None  
 Distribution: Endemic to India  
*Hipposideros durgadasi* Khajuria, 1970  
 Madhya Pradesh  
 Comments: Belongs to *bicolor* species group. Earlier considered a form of  
*Hipposideros cineraceus* Blyth, 1853, presently considered distinct (Topál  
 1975; Khajuria 1982; Corbet and Hill 1992)
- 

**277. *Hipposideros hypophyllus* Kock and Bhat, 1994**1994. *Hipposideros hypophyllus* Kock and Bhat, Senckenberg. Biol., 73:25

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**Kolar Leaf-nosed Bat (Leafletted Leaf-nosed Bat, Kolar Roundleaf Bat)**

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- Type locality: Hanumanhalli, 15 km E. Kolar, Bangalore, Karnataka, India  
 Synonyms: None  
 Subspecies: None  
 Distribution: Endemic to India  
*Hipposideros hypophyllus* Kock and Bhat, 1994  
 Karnataka  
 Comments: Belongs to *bicolor* species group
-

**Genus *Triaenops* Dobson, 1871**

**Trident Bats**

**278. *Triaenops persicus* Dobson, 1871**

1871. *Triaenops persicus* Dobson, J. Asiat. Soc. Bengal, 40, 2:455, pl. 18

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Persian Trident Bat

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Type locality:	Shiraz (ca. 4,750 ft), Iran
Synonyms:	None
Subspecies:	<i>Triaenops persicus persicus</i> Dobson, 1871
Distribution:	<i>Triaenops persicus persicus</i> Dobson, 1871 Pakistan—Sindh
Comments:	Reviewed by Kock and Felten (1980)

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**Family Megadermatidae H. Allen, 1864**

**Genus *Megaderma* E. Geoffroy, 1810**

Two species belonging to two subgenera (*Megaderma* Geoffroy, 1810 and *Lyroderma* Peters, 1872) (Corbet and Hill 1992) occur in South Asia.

**279. *Megaderma spasma* (Linnaeus, 1758)**

1758. *Vespertilio spasma* Linnaeus, Syst. Nat. 10th ed., 1:32

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Lesser False Vampire Bat (Lesser False Vampire)

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Type locality:	Molucca islands, Indonesia
Synonyms:	<i>Vespertilio spasma</i> Linnaeus, 1758 <i>Megaderma horsfieldii</i> Blyth, 1863
Subspecies:	<i>Megaderma spasma horsfieldii</i> Blyth, 1863 <i>Megaderma spasma ceylonense</i> Andersen, 1918 <i>Megaderma spasma majus</i> Andersen, 1918
Distribution:	<i>Megaderma spasma horsfieldii</i> Blyth, 1863 Endemic to India, Andaman and Nicobar Islands, Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Tamil Nadu, and West Bengal <i>Megaderma spasma ceylonense</i> Andersen, 1918 Endemic to Sri Lanka, Eastern, Southern, and Western Provinces <i>Megaderma spasma majus</i> Andersen, 1918 Bangladesh—Chittagong, Khulna, and Sylhet India—Assam, Manipur, Meghalaya, Mizoram, Tripura, and West Bengal
Comments:	Belongs to the subgenus <i>Megaderma</i> Geoffroy, 1810. Bates and Harrison (1997) consider the subspecies <i>Megaderma spasma ceylonense</i> Andersen, 1918 as indistinct due to character overlaps

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**280. *Megaderma lyra* E. Geoffroy, 1810**1810. *Megaderma lyra* E. Geoffroy, Ann. Mus. Hist. Nat. Paris, 15:190

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**Greater False Vampire Bat (Greater False Vampire)**

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- Type locality: Madras, India
- Synonyms: *Vespertilio (Megaderma) carnatica* Elliot, 1839  
*Megaderma spectrum* Wagner, 1844  
*Megaderma schistacea* Hodgson, 1847  
*Encheira lyra caurina* Andersen and Wroughton, 1907  
*Megaderma lyra caurina* (Andersen and Wroughton, 1907)
- Subspecies: *Megaderma lyra lyra* E. Geoffroy, 1810
- Distribution: *Megaderma lyra lyra* E. Geoffroy, 1810  
 Afghanistan—Nangarhar Province  
 Bangladesh—Chittagong, Dhaka, Khulna, Rajshahi, and Sylhet  
 India—Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal  
 Nepal—Central Nepal  
 Pakistan—Balochistan and Punjab  
 Sri Lanka—Central, North Central, Northern, Southern, and Western Provinces
- Comments: Belongs to the subgenus *Lyroderma* Peters, 1872. Earlier, the taxon *caurina* Andersen and Wroughton, 1907 was recognized as valid subspecies (Ellerman and Morrison-Scott 1951), but later it was synonymized with the nominate subspecies (Brosset 1962b; Sinha 1970; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005). May possibly also occur in Bhutan
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**Family Rhinopomatidae Bonaparte, 1838****Genus *Rhinopoma* E. Geoffroy, 1818**

Three species occur in South Asia.

**281. *Rhinopoma hardwickii* Gray, 1831**1831. *Rhinopoma hardwickii* Gray, Zool. Misc., 1:37

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**Lesser Mouse-tailed Bat**

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- Type locality: India, restricted to Bengal by Quimsey et al. (1992)
- Synonyms: None
- Subspecies: *Rhinopoma hardwickii hardwickii* Gray, 1831
- Distribution: *Rhinopoma hardwickii hardwickii* Gray, 1831  
 Afghanistan—Nangarhar and Konar Provinces  
 Bangladesh—Khulna  
 India—Andhra Pradesh, Bihar, Delhi, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal  
 Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh
- Comments: Earlier included *muscatellum* Thomas, 1903 (Ellerman and Morrison-Scott 1951), which presently is a distinct species
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**282. *Rhinopoma microphyllum* (Brünnich, 1872)**1872. *Vespertilio microphyllus* Brünnich, Dyrenes Historie, 1:50, pl. 6, fig. 1–4

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**Greater Mouse-tailed Bat**

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- Type locality: Giza, Egypt
- Synonyms: *Vespertilio microphyllus* Brünnich, 1872  
*Rhinopoma kinneari* Wroughton, 1912
- Subspecies: *Rhinopoma microphyllum microphyllum* (Brünnich, 1872)  
*Rhinopoma microphyllum kinneari* Wroughton, 1912
- Distribution: *Rhinopoma microphyllum microphyllum* (Brünnich, 1872)  
Afghanistan—Helmand, Kandahar, Konar, Nangarhar, and Nimruz Provinces  
Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh  
*Rhinopoma microphyllum kinneari* Wroughton, 1912  
Endemic to South Asia  
Bangladesh—Dhaka, Khulna, and Rajshahi  
India—Andhra Pradesh, Bihar, Delhi, Gujarat, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, and Uttar Pradesh
- Comments: Ellerman and Morrison-Scott (1951) treated the taxon *Rhinopoma kinneari* Wroughton, 1912 as a distinct species. However, Hill (1977), Corbet and Hill (1992), Koopman (1993), Bates and Harrison (1997), Simmons (2005) treated it as subspecies of this taxon
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**283. *Rhinopoma muscatellum* Thomas, 1903**1903. *Rhinopoma muscatellum* Thomas, Ann. Mag. Nat. Hist., (7) 11:498

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**Small Mouse-tailed Bat**

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- Type locality: Wadi Bani Ruha, Muscat, Oman
- Synonyms: *Rhinopoma hardwickii muscatellum* Thomas, 1903  
*Rhinopoma hardwickii seianum* Thomas, 1913
- Subspecies: *Rhinopoma muscatellum seianum* Thomas, 1913
- Distribution: *Rhinopoma muscatellum seianum* Thomas, 1913  
Afghanistan—Kandahar and Nimruz Provinces  
Pakistan—Balochistan
- Comments: Earlier the taxa *muscatellum* Thomas, 1903 and *seianum* Thomas, 1913 were treated as subspecies of *Rhinopoma hardwickii* Gray, 1831 (Ellerman and Morrison-Scott 1951). It may probably occur in India (Simmons 2005), but we do not include the doubtful records of its occurrence in India, either from Genji (23°42'N and 73°46'E) in Rajasthan or from Gingee (12°15'N and 79°25'E) in Tamil Nadu as reported by Van Cakenberghe and de Vree (1994) and Bates and Harrison (1997) owing to paucity of fresh material from India
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### Family Emballonuridae Gervais, 1855

Earlier included three subgenera (namely *Taphozous* E. Geoffroy, 1818, *Liponycteris* Thomas, 1922, and *Saccolaimus* Temminck, 1838) under the genus *Taphozous* E. Geoffroy, 1818 (Ellerman and Morrison-Scott 1951; Hayman and Hill 1971; Corbet and Hill 1980, 1992; Bates and Harrison 1997). However, some authorities (*see* Barghoorn 1977; Chimimba and Kitchener 1991; Simmons 2005) consider *Saccolaimus* Temminck, 1838 as distinct genus, a trend we followed. Six species represent this family in South Asia.

#### Genus *Saccolaimus* Lesson, 1842

##### Pouched Bats

Earlier treated as a subgenus of genus *Taphozous* E. Geoffroy, 1818, now treated it as a distinct genus. This genus is represented by one species in South Asia.

#### 284. *Saccolaimus saccolaimus* (Temminck, 1838)

1838. *Taphozous saccolaimus* Temminck, Tijdschr. Nat. Gesch. Physiol., 5:14

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##### Pouch-bearing Tomb Bat (Bare-rumped Sheath-tail-bat)

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Type locality:	Java, Indonesia
Synonyms:	<i>Taphozous saccolaimus</i> Temminck, 1838 <i>Taphozous crassus</i> Blyth, 1844 <i>Taphozous saccolaimus crassus</i> Blyth, 1844 <i>Taphozous pulcher</i> Blyth, 1844
Subspecies:	<i>Saccolaimus saccolaimus crassus</i> (Blyth, 1844)
Distribution:	<i>Saccolaimus saccolaimus crassus</i> (Blyth, 1844) Bangladesh—Sylhet India—Andaman and Nicobar Islands, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Uttar Pradesh, and West Bengal Sri Lanka—Uva and Western Provinces
Comments:	Bates and Harrison (1997) considered the nominate subspecies of the taxon to represent forms in South Asia and treated all other nomen as synonyms owing to minor differences in morphological characteristics. Simmons (2005) recognized <i>crassus</i> Blyth, 1844 as valid subspecies

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#### Genus *Taphozous* E. Geoffroy, 1818

##### Tomb Bats

This genus is represented by five species in South Asia.

**285. *Taphozous perforatus* E. Geoffroy, 1818**1818. *Taphozous perforatus* E. Geoffroy, Descrip. De L'Egypte, 2:126

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**Egyptian Tomb Bat**

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- Type locality: Kom Ombo, Egypt  
 Synonyms: None  
 Subspecies: *Taphozous perforatus perforatus* E. Geoffroy, 1818  
 Distribution: *Taphozous perforatus perforatus* E. Geoffroy, 1818  
                   India—Andhra Pradesh, Gujarat, Madhya Pradesh, and Rajasthan  
                   Pakistan—Sindh  
 Comments: Belongs to the subgenus *Taphozous* E. Geoffroy, 1818
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**286. *Taphozous longimanus* Hardwicke, 1825**1825. *Taphozous longimanus* Hardwicke, Trans. Linn. Soc. Lond., 14:525

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**Long-winged Tomb Bat**

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- Type locality: Calcutta, India  
 Synonyms: *Taphozous fulvidus* Blyth, 1841  
                   *Taphozous brevicaudus* Blyth, 1841  
                   *Taphozous cantorii* Blyth, 1842  
 Subspecies: *Taphozous longimanus longimanus* Hardwicke, 1825  
 Distribution: *Taphozous longimanus longimanus* Hardwicke, 1825  
                   Bangladesh—No exact location  
                   India—Andhra Pradesh, Assam, Bihar, Gujarat, Jharkhand, Karnataka,  
                   Kerala, Madhya Pradesh, Maharashtra, Nagaland, Orissa, Rajasthan,  
                   Tamil Nadu, Tripura, Uttar Pradesh, and West Bengal  
                   Nepal—No exact location  
                   Sri Lanka—Eastern, Northern, Uva, and Western Provinces  
 Comments: Belongs to the subgenus *Taphozous* E. Geoffroy, 1818
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**287. *Taphozous nudiventris* Cretzschmar, 1830**1830. *Taphozous nudiventris* Cretzschmar, In Rüppell, Atlas Reise Nordl. Afr. Zool. Säügeth., p. 70, fig. 27b

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**Naked-rumped Tomb Bat**

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- Type locality: Giza, Egypt  
 Synonyms: *Taphozous nudiventer* Temminck, 1841  
                   *Taphozous kachhensis* Dobson, 1872  
 Subspecies: *Taphozous nudiventris kachhensis* Dobson, 1872  
 Distribution: *Taphozous nudiventris kachhensis* Dobson, 1872  
                   Endemic to South Asia  
                   Afghanistan—Kabul, Kandahar, and Nangarhar Provinces  
                   Bangladesh—No exact location  
                   India—Andhra Pradesh, Bihar, Delhi, Gujarat, Karnataka, Madhya  
                   Pradesh, Maharashtra, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh,  
                   and West Bengal  
                   Pakistan—Punjab and Sindh
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**Naked-rumped Tomb Bat**

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Comments: Belongs to the subgenus *Liponycteris* Thomas, 1922. Earlier the taxon *kachhensis* Dobson, 1872 was regarded as distinct species (Ellerman and Morrison-Scott 1951), but treated as subspecies of *Taphozous nudiventris* Cretzschmar, 1830 by subsequent workers (Felten 1962; Harrison 1964; Corbet and Hill 1992; Agrawal et al. 1992; Koopman 1993; Bates et al. 1994; Bates and Harrison 1997; Simmons 2005). May possibly also occur in Bhutan and Nepal

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**288. *Taphozous melanopogon* Temminck, 1841**1841. *Taphozous melanopogon* Temminck, Monogr. Mamm., 2:287

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**Black-bearded Tomb Bat**

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Type locality: Bantam, West Java, Indonesia  
 Synonyms: *Taphozous bicolor* Temminck, 1841  
 Subspecies: *Taphozous melanopogon melanopogon* Temminck, 1842  
 Distribution: *Taphozous melanopogon melanopogon* Temminck, 1841  
 Bangladesh—No exact location  
 India—Andaman and Nicobar Islands, Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, and Tamil Nadu  
 Sri Lanka—Central, Northern Central, North Western, Sabaragamuwa, and Western Provinces

Comments: Belongs to the subgenus *Taphozous* E. Geoffroy, 1818. Although Simmons (2005) has listed *bicolor* Temminck, 1841 as valid subspecies, we follow Bates and Harrison (1997) in synonymizing the nomen with *Taphozous melanopogon* Temminck, 1841 owing to overlapping characters

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**289. *Taphozous theobaldi* Dobson, 1872**1872. *Taphozous theobaldi* Dobson, Proc. Asiat. Soc. Bengal, 152 pp

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**Theobald's Tomb Bat (Theobald's Bat)**

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Type locality: Tenasserim, Myanmar  
 Synonyms: None  
 Subspecies: *Taphozous theobaldi secatus* Dobson, 1872  
 Distribution: *Taphozous theobaldi secatus* Dobson, 1872  
 Endemic to India, Karnataka, Kerala, Madhya Pradesh, and Maharashtra

Comments: Belongs to the subgenus *Taphozous* E. Geoffroy, 1818

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**Family Molossidae Gill, 1872****Free-tailed Bats**

Representatives belonging to three genera namely, *Tadarida* Rafinesque, 1814, *Chaerephon* Dobson, 1874, and *Otomops* Thomas, 1913 occur in South Asia.

## Genus *Chaerephon* Dobson, 1874

### Mastiff Bats

Earlier included as subgenus of *Tadarida* Rafinesque, 1814 (Ellerman and Morrison-Scott 1951; Hill 1983; Legendre 1984; Corbet and Hill 1992; Peterson et al. 1995; Bates and Harrison 1997), but considered distinct (Freeman 1981; Simmons 2005). One species occurs in South Asia.

#### **290. *Chaerephon plicatus* (Buchanan, 1800)**

1800. *Vespertilio plicatus* Buchanan, Trans. Linn. Soc. London, 5:261, pl. 13

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#### Wrinkle-lipped Free-tailed Bat (Wrinkle-lipped Bat)

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Type locality:	Puttahaut, Bengal, India
Synonyms:	<i>Vespertilio plicatus</i> Buchanan, 1800 <i>Nyctinomus bengalensis</i> Desmarest, 1820 <i>Dysopes murinus</i> Gray, 1830 <i>Tadarida plicata insularis</i> Phillips, 1932
Subspecies:	<i>Chaerephon plicatus plicatus</i> (Buchanan, 1874) <i>Chaerephon plicatus insularis</i> (Phillips, 1932)
Distribution:	<i>Chaerephon plicatus plicatus</i> (Buchanan, 1800) Afghanistan—Kabul Province India—Andhra Pradesh, Goa, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, and West Bengal <i>Chaerephon plicatus insularis</i> (Phillips, 1932) Endemic to Sri Lanka, Central, and Western Provinces
Comments:	Belongs to <i>plicatus</i> species group

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## Genus *Otomops* Thomas, 1913

### Giant Mastiff Bats

One species occurs in South Asia.

#### **291. *Otomops wroughtoni* (Thomas, 1913)**

1913. *Nyctinomus wroughtoni* Thomas, Jour. Bombay Nat. Hist. Soc., 22:87

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#### Wroughton's Giant Mastiff Bat (Wroughton's Free-tailed Bat)

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Type locality:	Near Talewadi, Kanara (now Uttar Kannad), Karnataka, India
Synonyms:	<i>Nyctinomus wroughtoni</i> Thomas, 1913
Subspecies:	None
Distribution:	<i>Otomops wroughtoni</i> (Thomas, 1913) India—Karnataka and Meghalaya
Comments:	Until recently, this species was considered an Indian endemic known only from the vicinity of the type locality. Recent studies revealed its presence in Meghalaya (Thabah and Bates 2002) in India and also in Cambodia (Walston and Bates 2001)

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**Genus *Tadarida* Rafinesque, 1814**

**Free-tailed Bats**

Earlier included forms belonging to subgenus *Chaerephon* Dobson, 1874, see comments therein. Two species are known from South Asia.

**292. *Tadarida teniotis* (Rafinesque, 1814)**

1814. *Cephalotes teniotis* Rafinesque, *Precis Som.*, 12 pp

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European Free-tailed Bat

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Type locality:	Sicily, Italy
Synonyms:	<i>Cephalotes teniotis</i> Rafinesque, 1814
Subspecies:	<i>Tadarida teniotis teniotis</i> (Rafinesque, 1814)
Distribution:	<i>Tadarida teniotis teniotis</i> (Rafinesque, 1814) Afghanistan—Kabul Province India—West Bengal (Hill 1963a)
Comments:	Belongs to <i>teniotis</i> species group. May also occur in Bangladesh, Bhutan, and Nepal

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**293. *Tadarida aegyptiaca* (E. Geoffroy, 1818)**

1818. *Nyctinomus aegyptiacus* Geoffroy, E., *Discrip. De L’Egypte* 2:128, pl. 2, No. 2

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Egyptian Free-tailed Bat

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Type locality:	Giza, Egypt
Synonyms:	<i>Nyctinomus aegyptiacus</i> Geoffroy, E. 1818 = <i>Dysopes geoffroyi</i> Temminck, 1826 <i>Nyctinomus tragata</i> Dobson, 1874 <i>Tadarida tragata</i> (Dobson, 1874) <i>Tadarida thomasi</i> Wroughton, 1919 <i>Tadarida sindhica</i> Wroughton, 1919 <i>Tadarida gossei</i> Wroughton, 1919 <i>Tadarida aegyptiaca gossei</i> Wroughton, 1919
Subspecies:	<i>Tadarida aegyptiaca tragatus</i> (Dobson, 1874) <i>Tadarida aegyptiaca thomasi</i> Wroughton, 1919 <i>Tadarida aegyptiaca sindhica</i> Wroughton, 1919

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**Egyptian Free-tailed Bat**

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- Distribution: *Tadarida aegyptiaca tragatus* (Dobson, 1874)  
 Endemic to South Asia  
 Bangladesh—No exact location  
 India—Distribution uncertain, the type locality is given as Calcutta, West Bengal, India, which Chaturvedi (1964) opines could be wrong. Ellerman and Morrison-Scott (1951) also include Malabar (present Kerala) as its distribution range
- Tadarida aegyptiaca thomasi* Wroughton, 1919  
 Endemic to South Asia  
 India—Andhra Pradesh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, and West Bengal  
 Pakistan—Sindh  
 Sri Lanka—Central and Uva Provinces
- Tadarida aegyptiaca sindhica* Wroughton, 1919  
 Afghanistan—Kabul Province  
 Pakistan—Punjab and Sindh
- Comments: None
- 

**Family Vespertilionidae Gray, 1821****Subfamily Vespertilioninae Miller, 1897**

Hill and Harrison (1987) and Menu (1985, 1987) have reviewed this subfamily based on baculum and dental characters. Species belonging to the following tribes and the genera included under them [Tribe Eptesicini Volleth and Heller, 1994 (*Arielulus* Hill and Harrison, 1987, *Eptesicus* Rafinesque, 1820, and *Hesperoptenus* Peters, 1868), Tribe Nycticeiini Gervais, 1855 (*Scotoecus* Thomas, 1901, *Scotomanes* Dobson, 1875, and *Scotophilus* Leach, 1821), Tribe Pipistrellini Tate, 1942 (*Nyctalus* Bowditch, 1825, *Pipistrellus* Kaup, 1829, and *Scotozous* Dobson, 1875), Tribe Plecotini Gray, 1866 (*Barbastella* Gray, 1821, *Otonycteris* Peters, 1859, and *Plecotus* E. Geoffroy, 1818), and Tribe Vespertilionini Gray, 1821 (*Falsistrellus* Troughton, 1943, *Hypsugo* Kolenati, 1856, *Ia* Thomas, 1902, *Philetor* Thomas, 1902, *Tylonycteris* Peters, 1872, and *Vespertilio* Linnaeus, 1758)] are found in South Asia. Thirty-seven species represent this subfamily in South Asia.

**Tribe Eptesicini Volleth and Heller, 1994**

Includes the genera *Arielulus* Hill and Harrison, 1987, *Eptesicus* Rafinesque, 1820 and *Hesperoptenus* Peters, 1868 (Volleth and Heller 1994; Volleth et al. 2001).

**Genus *Arielulus* Hill and Harrison, 1987**

**Sprites**

Hill and Harrison (1987) erected subgenus *Arielulus* under *Pipistrellus* Kaup, 1829. Volleth and Heller (1994) transferred it under genus *Eptesicus* Rafinesque, 1820, but Csorba and Lee (1999) upgraded it as a distinct genus. Represented by one species in South Asia.

**294. *Arielulus circumdatus* (Temminck, 1840)**

1840. *Vespertilio circumdatus* Temminck, Monogr. Mamm., 2:214

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Bronze Sprite (Black-gilded Pipistrelle)

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Type locality:	Tapos, Java, Indonesia
Synonyms:	<i>Vespertilio circumdatus</i> Temminck, 1840 <i>Pipistrellus circumdatus</i> (Temminck, 1840)
Subspecies:	None
Distribution:	<i>Arielulus circumdatus</i> (Temminck, 1840) India—Assam, Meghalaya, Mizoram, and Sikkim Nepal—Eastern Nepal
Comments:	None

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**Genus *Eptesicus* Rafinesque, 1820**

**Serotines**

Seven species belonging to three species groups (namely, *serotinus* species group, *nilssonii* species group and *nasutus* species group) are represented in South Asia.

**295. *Eptesicus serotinus* (Schreber, 1774)**

1774. *Vespertilio serotinus* Schreber, Die Säugethiere, 1:167

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Serotine

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Type locality:	France
Synonyms:	<i>Vespertilio serotinus</i> Schreber, 1774 <i>Scotoophilus pachyomus</i> Tomes, 1857
Subspecies:	<i>Eptesicus serotinus pachyomus</i> (Tomes, 1857) <i>Eptesicus serotinus pashtonus</i> Gaisler, 1970
Distribution:	<i>Eptesicus serotinus pachyomus</i> (Tomes, 1857) India—Assam, Jammu and Kashmir, Nagaland, Rajasthan, and Uttarakhand Nepal—East Nepal <i>Eptesicus serotinus pashtonus</i> Gaisler, 1970 Afghanistan—Badakhshan, Konduz, and Nangarhar Provinces Pakistan—Khyber Pakhtunkhwa
Comments:	Belongs to the <i>serotinus</i> species group. May possibly also occur in Bhutan

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**296. *Eptesicus bottae* (Peters, 1869)**1869. *Vesperus bottae* Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, p. 406

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**Botta's Serotine**

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- Type locality: Yemen
- Synonyms: *Vesperus bottae* Peters, 1869  
*Eptesicus isabellinus bottae* (Peters, 1869)  
*Eptesicus ognevi* Bobrinskii, 1918  
*Eptesicus sodalis ognevi* Bobrinskii, 1918
- Subspecies: *Eptesicus bottae ognevi* Bobrinskii, 1918  
*Eptesicus bottae taftanimontis* de Roguin, 1988
- Distribution: *Eptesicus bottae ognevi* (Bobrinskii, 1918)  
India—Jammu and Kashmir (in Disputed Kashmir)  
*Eptesicus bottae taftanimontis* de Roguin, 1988  
Afghanistan—Badakhshan and Balkh Provinces. Probably also in Kabul Province
- Comments: Belongs to the *serotinus* species group. Earlier included under *Eptesicus isabellinus* (Temminck, 1840) (Ellerman and Morrison-Scott 1951) and *Eptesicus serotinus* (Schreber, 1774). The taxon *bottae* Peters, 1969 is considered distinct (Roberts 1977, 1997; Corbet and Hill 1992; Bates and Harrison 1997; Simmons 2005)
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**297. *Eptesicus pachyotis* (Dobson, 1871)**1871. *Vesperugo* (*Vesperus*) *pachyotis* Dobson, Proc. Asiat. Soc. Bengal, p. 211

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**Thick-eared Bat (Thick-eared Serotine)**

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- Type locality: Khasi Hills, Assam (now in Meghalaya), India
- Synonyms: *Vesperugo* (*Vesperus*) *pachyotis* Dobson, 1871
- Subspecies: None
- Distribution: *Eptesicus pachyotis* (Dobson, 1871)  
Bangladesh—Sylhet  
India—Meghalaya and Mizoram
- Comments: Belongs to the *serotinus* species group. Sarker and Sarker (2005) report its occurrence in Bangladesh
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**298. *Eptesicus nasutus* (Dobson, 1877)**1877. *Vesperugo* (*Vesperus*) *nasutus* Dobson, J. Asiat. Soc. Bengal, 46, 2:311

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**Sind Serotine (Sind Bat)**

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- Type locality: Shikarpur, E. of Rohri, Sindh, Pakistan
- Synonyms: *Vesperugo* (*Vesperus*) *nasutus* Dobson, 1877
- Subspecies: *Eptesicus nasutus nasutus* (Dobson, 1877)
- Distribution: *Eptesicus nasutus nasutus* (Dobson, 1877)  
Afghanistan—Nangarhar and Laghman Provinces  
Pakistan—Balochistan and Sindh
- Comments: Belongs to the *nasutus* species group
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**299. *Eptesicus dimissus* Thomas, 1916**1916. *Eptesicus dimissus* Thomas, J. Fed. Malay. St. Mus., 7:1

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**Surat Serotine**

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Type locality:	Kao Nawg, 3,500 ft (= 1,166 m), Surat (Bandon), Thailand
Synonyms:	None
Subspecies:	None
Distribution:	<i>Eptesicus dimissus</i> Thomas, 1916 Nepal—Central Nepal
Comments:	Belongs to the <i>serotinus</i> species group. This species has been recently reported from Nepal (Myers et al. 2000)

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**300. *Eptesicus gobiensis* Bobrinskii, 1926**1926. *Eptesicus nilssonii gobiensis* Bobrinskii, Doklady Acad. Nauk S. S. S. R., A:96

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**Gobi Big Brown Bat (Gobi Serotine)**

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Type locality:	Gobi Altai Mountains, Mongolia
Synonyms:	<i>Eptesicus nilssonii gobiensis</i> Bobrinskii, 1926 <i>Eptesicus nilssonii centrasiaticus</i> Bobrinskii, 1926 <i>Eptesicus nilssonii kashgaricus</i> Bobrinskii, 1926
Subspecies:	<i>Eptesicus gobiensis kashgaricus</i> Bobrinskii, 1926 <i>Eptesicus gobiensis centrasiaticus</i> Bobrinskii, 1926
Distribution:	<i>Eptesicus gobiensis kashgaricus</i> (Bobrinskii, 1926) Afghanistan—Kabul Province India—Jammu and Kashmir (in Disputed Kashmir) <i>Eptesicus gobiensis centrasiaticus</i> Bobrinskii, 1926 Nepal—No exact locality known
Comments:	Belongs to the <i>nilssonii</i> species group. Earlier treated under <i>Eptesicus nilssonii</i> (Keyserling and Blasius 1839) (Ellerman and Morrison-Scott 1951; Koopman 1993), the taxon <i>gobiensis</i> Bobrinskii, 1926, is now considered distinct (Wallin 1969; Strelkov 1986; Pavlinov and Rossolimo 1987; Corbet and Hill 1992; Bates and Harrison 1997; Simmons 2005). The taxon <i>kashgaricus</i> Bobrinskii, 1926 was earlier included under <i>nilssonii</i> Keyserling and Blasius, 1839 (Ellerman and Morrison-Scott 1951; Chakraborty 1983), later included under <i>gobiensis</i> Bobrinskii, 1926 following Corbet and Hill (1992). Although Corbet and Hill (1992), Koopman (1993), and Simmons (2005) include Nepal as its range, exact location of its occurrence is not known

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**301. *Eptesicus tatei* Ellerman and Morrison-Scott, 1951**1951. *Eptesicus tatei* Ellerman and Morrison-Scott, Checklist Palearctic Indian Mammals, p. 158

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**Sombre Bat (Sombre Serotine)**

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Type locality:	Darjeeling, India
Synonyms:	<i>Nycticeius atratus</i> Blyth, 1863 (not Kolenati, 1858)
Subspecies:	None

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**Sombre Bat (Sombre Serotine)**

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- Distribution: Endemic to India  
*Eptesicus tatei* Ellerman and Morrison-Scott, 1951  
West Bengal
- Comments: Belongs to the *nilssonii* species group. This taxon was considered *incertae cedis* by Tate (1942). This species is known only from three specimens from the type locality (Blyth 1863a; Agrawal et al. 1992) of which only two are present in Zoological Survey of India (Das 2003)
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**Genus *Hesperoptenus* Peters, 1868****False Serotines**

Represented by single species in South Asia.

**302. *Hesperoptenus tickelli* (Blyth, 1851)**1851. *Nycticejus tickelli* Blyth, J. Asiat. Soc. Bengal, 20:157

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**Tickell's Bat**

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- Type locality: Chaibassa, Bihar (now in Jharkhand), India
- Synonyms: *Nycticejus tickelli* Blyth, 1851  
*Nycticejus isabellinus* Kelaart, 1850 (*nomen nudum*)  
=*Nycticejus isabellinus* Horsfield, 1851
- Subspecies: None
- Distribution: *Hesperoptenus tickelli* (Blyth, 1851)  
Bangladesh—Dhaka  
Bhutan—No exact location  
India—Andaman Islands, Andhra Pradesh, Assam, Goa, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, and West Bengal  
Nepal—Mid-Western Nepal  
Sri Lanka—Central, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces
- Comments: See Hill (1976) for details
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**Tribe Nycticeiini Gervais, 1855****Genus *Scotoecus* Thomas, 1901****Yellow Bats**

Represented by a single species in South Asia.

**303. *Scotoecus pallidus* (Dobson, 1876)**1876. *Scotophilus pallidus* Dobson, Monogr. Asiat. Chiroptera, App. D.:186

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**Desert Yellow Lesser House Bat**

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- Type locality: Mian Mir, Lahore, Punjab, Pakistan
- Synonyms: *Vespertilio noctulinus* I. Geoffroy, 1831  
*Scotophilus pallidus* Dobson, 1876  
*Nycticeius pallidus* (Dobson, 1876)
- Subspecies: None
- Distribution: Endemic to South Asia  
*Scotoecus pallidus* (Dobson, 1876)  
 India—Bihar, Himachal Pradesh, Jharkhand, Uttar Pradesh, and West Bengal  
 Pakistan—Punjab and Sindh
- Comments: Ellerman and Morrison-Scott (1951) treated it as *Nycticeius pallidus* (Dobson, 1876). However, Hill (1974) reviewed the status of this species and included this taxon under *Scotoecus* Thomas, 1901. Tate (1942) opined that if *noctulinus* I. Geoffroy, 1831 is identifiable then it would be first name for *pallidus* Dobson, 1876
- 

**Genus *Scotomanes* Dobson, 1875****Harlequin Bat**

Monotypic genus.

**304. *Scotomanes ornatus* (Blyth, 1851)**1851. *Nycticejus ornatus* Blyth, J. Asiat. Soc. Bengal, 20:517

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**Harlequin Bat**

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- Type locality: Cherrapunji, Khasi Hills, Assam (now in Meghalaya), India
- Synonyms: *Nycticejus ornatus* Blyth, 1851  
*Nycticejus nivicolus* Hodgson, 1855  
*Nycticejus emarginatus* Dobson, 1871  
*Scotomanes ornatus emarginatus* (Dobson, 1871)
- Subspecies: *Scotomanes ornatus ornatus* (Blyth, 1851)  
*Scotomanes ornatus imbreensis* Thomas, 1921
- Distribution: *Scotomanes ornatus ornatus* (Blyth, 1851)  
 Bangladesh—Sylhet  
 Bhutan—Unknown location  
 India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland, Sikkim, and West Bengal  
 Nepal—Eastern Nepal  
*Scotomanes ornatus imbreensis* Thomas, 1921  
 India—Meghalaya
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**Harlequin Bat**

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Comments: Earlier included under subgenus *Scotoeinus* Dobson, 1875 of genus *Nycticeius* Rafinesque, 1819 (Ellerman and Morrison-Scott 1951), the taxon *emarginatus* Dobson, 1871, is now included under *Scotomanes ornatus* (Blyth, 1851) (Sinha and Chakraborty 1971; Hill 1974; Corbet and Hill 1992; Bates and Harrison 1997; Simmons 2005). The taxon *imbrensis* Thomas, 1921, earlier a subspecies (Ellerman and Morrison-Scott 1951), later, synonymized under *Scotomanes ornatus* (Blyth, 1851) (Das et al. 1995; Koopman 1993; Bates and Harrison 1997), is treated as subspecies (Corbet and Hill 1992; Simmons 2005)

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**Genus *Scotophilus* Leach, 1821****Yellow House Bat**

Two species belonging to this genus are known in South Asia.

**305. *Scotophilus kuhlii* Leach, 1821**

1821. *Scotophilus kuhlii* Leach, Trans. Linn. Soc. Lond., 13:71

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**Lesser Asiatic Yellow House Bat (Asiatic Lesser Yellow House Bat)**

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Type locality: "India"  
 Synonyms: *Scotophilus fulvus* Gray, 1843  
*Scotophilus wroughtoni* Thomas, 1897  
*Scotophilus temmincki wroughtoni* Thomas, 1897  
*Scotophilus kuhlii wroughtoni* Thomas, 1897  
 Subspecies: *Scotophilus kuhlii kuhlii* Leach, 1821  
 Distribution: *Scotophilus kuhlii kuhlii* Leach, 1821  
 Bangladesh—Chittagong, Khulna, and Sylhet  
 India—Andaman and Nicobar Islands, Andhra Pradesh, Assam, Bihar, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, and West Bengal  
 Pakistan—Punjab and Sindh  
 Sri Lanka—Central, Eastern, Northern, North Central, and Uva Provinces  
 Comments: See comments under *Scotophilus heathii* (Horsfield, 1831). The taxon *wroughtoni* Thomas, 1897, earlier considered subspecies (Bates and Harrison 1997), is now synonymized with this taxon (Simmons 2005). This taxon may probably also occur in Bhutan and Nepal

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**306. *Scotophilus heathii* (Horsfield, 1831)**1831. *Nycticejus heathii* Horsfield, Proc. Zool. Soc. Lond., p. 113

Greater Asiatic Yellow House Bat (Asiatic Greater Yellow House Bat)

- Type locality: Madras, Tamil Nadu, India
- Synonyms: *Nycticejus heathii* Horsfield, 1831  
*Vespertilio belangeri* Geoffroy, 1834  
*Scotophilus heathi belangeri* (Geoffroy, 1834)  
*Nycticejus luteus* Blyth, 1851  
*Scotophilus flaveolous* Horsfield, 1851
- Subspecies: *Scotophilus heathii heathii* (Horsfield, 1831)
- Distribution: *Scotophilus heathii heathii* (Horsfield, 1831)  
 Afghanistan—Nangarhar and Laghman Provinces  
 Bangladesh—Sylhet  
 India—Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Nagaland, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central and Western Nepal  
 Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh  
 Sri Lanka—Central, Northern, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces
- Comments: Ellerman and Morrison-Scott (1951) listed two species *Scotophilus temminckii* Horsfield, 1824 and *Scotophilus heathii* Horsfield, 1831 as valid for the region and synonymized *kuhlii* Leach, 1821 with the latter taxon following Tate (1942). However, Hill (in Peterson, 1968) and Hill and Thonglongya (1972) reviewed the specimens belonging to *Scotophilus* Leach, 1821 and recognized *kuhlii* Leach, 1821 (instead of *temminckii* Horsfield, 1824, a *nomen* by which the Indian specimens were hitherto known) and *heathii* Horsfield, 1831 as valid species in South Asia. This taxon may probably also occur in Bhutan

**Tribe Pipistrellini Tate, 1942****Genus *Nyctalus* Bowditch, 1825****Noctules****307. *Nyctalus noctula* (Schreber, 1774)**1774. *Vespertilio noctula* Schreber, Die Säugeth., 1:166, pl. 52

Noctule

- Type locality: France
- Synonyms: *Vespertilio noctula* Schreber, 1774  
*Vespertilio labiata* Hodgson, 1835
- Subspecies: *Nyctalus noctula labiata* (Dobson, 1876)
- Distribution: *Nyctalus noctula labiata* (Dobson, 1876)  
 India—Himachal Pradesh, Jammu and Kashmir, Nagaland, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central and Western Nepal  
 Pakistan—Khyber Pakhtunkhwa
- Comments: None. This taxon may probably also occur in Afghanistan and Bhutan

**308. *Nyctalus leisleri* (Kuhl, 1817)**1817. *Vespertilio leisleri* Kuhl, Die Deutschen Fledermause. Hanau, p. 14, 46

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 Leisler's Noctule (Leisler's Bat, Lesser Noctule)
 

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- Type locality: Hanau, Hessen, Germany  
 Synonyms: *Vespertilio leisleri* Kuhl, 1817  
 =*Vespertilio dasykarpos* Kuhl, 1818  
 Subspecies: *Nyctalus leisleri leisleri* (Kuhl, 1817)  
 Distribution: *Nyctalus leisleri leisleri* (Kuhl, 1817)  
 Afghanistan—Konar Province  
 India—Himachal Pradesh, Jammu and Kashmir, and Uttarakhand  
 Pakistan—Khyber Pakhtunkhwa and Punjab  
 Comments: Formerly included *montanus* (Barret-Hamilton 1906). See comments below
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**309. *Nyctalus montanus* (Barret-Hamilton, 1906)**1906. *Pterygistes montanus* Barrett-Hamilton, Ann. Mag. Nat. Hist., (7) 17:99

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 Mountain Noctule
 

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- Type locality: Mussoorie, Uttar Pradesh (now in Uttarakhand), India  
 Synonyms: *Pterygistes montanus* Barrett-Hamilton, 1906  
*Nyctalus leisleri montanus* (Barret-Hamilton, 1906)  
 Subspecies: None  
 Distribution: Endemic to South Asia  
*Nyctalus montanus* (Barret-Hamilton, 1906)  
 Afghanistan—Nangarhar and Paktika Provinces  
 India—Himachal Pradesh and Uttarakhand  
 Nepal—Mid-Western Nepal  
 Comments: Earlier included under *Nyctalus leisleri* (Kuhl, 1817) (Ellerman and Morrison-Scott 1951), now considered distinct (Gaisler 1970; Corbet 1978; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005). This taxon may probably occur in Pakistan (Roberts 1997; Simmons 2005)
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**Genus *Pipistrellus* Kaup, 1829****Pipistrelles**

Earlier included the subgenera *Pipistrellus* Kaup, 1829, *Hypsugo* Kolenati, 1856, *Falsistrellus* Troughton, 1943, *Arielulus* Hill and Harrison, 1987, *Vespadelus* Troughton, 1943 and *Neoromicia* Roberts, 1926 (Hill and Harrison 1987), most of which have been upgraded to generic level.

**310. *Pipistrellus pipistrellus* (Schreber, 1774)**1774. *Vespertilio pipistrellus* Schreber, Die Säugethiere, 1:167, pl. 54

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**Common Pipistrelle**

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Type locality:	France
Synonyms:	<i>Vespertilio pipistrellus</i> Schreber, 1774 <i>Pipistrellus aladdin</i> Thomas, 1905 <i>Pipistrellus coromandra aladdin</i> Thomas, 1905
Subspecies:	<i>Pipistrellus pipistrellus aladdin</i> Thomas, 1905
Distribution:	<i>Pipistrellus pipistrellus aladdin</i> Thomas, 1905 Afghanistan—Badghis, Baghlan, Balkh, Faryab, Herat, Jowzar, Kabul, Konar, Konduz, Nangarhar, and Takhar Provinces India—Assam, Jammu and Kashmir, Maharashtra, and Tamil Nadu Pakistan—Khyber Pakhtunkhwa
Comments:	Belongs to the <i>pipistrellus</i> subgroup of <i>pipistrellus</i> species group. Earlier included under <i>Pipistrellus coromandra</i> Gray, 1838 (Ellerman and Morrison-Scott 1951), the taxon <i>aladdin</i> Thomas, 1905, is treated as subspecies of <i>Pipistrellus pipistrellus</i> (Schreber, 1774) (Corbet 1978; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005). Recent reports from south India are based on Korad and Yardi (2004) and Vanitharani et al. (2005)

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**311. *Pipistrellus kuhlii* (Kuhl, 1817)**1817. *Vespertilio kuhlii* Kuhl, Die Deutschen Fledermäuse, Hanau, p. 14

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**Kuhl's Pipistrelle**

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Type locality:	Trieste, Friuli-Venezia Giulia, Italy
Synonyms:	<i>Vespertilio kuhlii</i> Kuhl, 1817 <i>Nycticeius canus</i> Blyth, 1863 <i>Scotophilus lobatus</i> Jerdon, 1867 <i>Vespertilio (Pipistrellus) leucotis</i> Dobson, 1872 <i>Pipistrellus lepidus</i> Blyth, 1845
Subspecies:	<i>Pipistrellus kuhlii lepidus</i> Blyth, 1845
Distribution:	<i>Pipistrellus kuhlii lepidus</i> Blyth, 1845 Afghanistan—Helmand, Kandahar, Nangarhar, Nimruz, and Paktiya Provinces India—Assam, Maharashtra, Meghalaya, and West Bengal Pakistan—Balochistan, Punjab, and Sindh
Comments:	Belongs to the <i>kuhlii</i> species group

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**312. *Pipistrellus coromandra* (Gray, 1838)**1838. *Scotophilus coromandra* Gray, Mag. Zool. Bot., 2:498

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**Coromandel Pipistrelle (Indian Pipistrelle)**

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- Type locality: Pondicherry (Puducherry), India
- Synonyms: *Scotophilus coromandra* Gray, 1838  
*Vespertilio coromandelicus* Blyth, 1851  
*Myotis parvipes* Blyth, 1853  
*Vesperugo blythii* Wagner, 1855  
*Vesperugo nicobaricus* Fitzinger, 1861  
*Scotophilus coromandelianus* Blyth, 1863  
*Vesperugo micropus* Peters, 1872  
*Pipistrellus coromandra afghanus* Giasler, 1970
- Subspecies: None
- Distribution: *Pipistrellus coromandra* (Gray, 1838)  
 Afghanistan—Nangarhar Province  
 Bangladesh—No exact location  
 Bhutan—No exact location  
 India—Andaman and Nicobar Islands, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Goa, Gujarat, Jammu and Kashmir (also in Disputed Kashmir), Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central Nepal  
 Pakistan—Khyber Pakhtunkhwa and Punjab  
 Sri Lanka—Central, North Central, North Western, Northern, Sabaragamuwa, Southern, Uva, and Western Provinces
- Comments: Belongs to the *coromandra* subgroup of *pipistrellus* species group. Earlier included *aladdin* Thomas, 1905 (Ellerman and Morrison-Scott 1951). Gaisler (1970) proposed the *nomen afghanus* to represent forms from Pakistan and Afghanistan (Corbet and Hill 1992; Bates and Harrison 1997). No subspecies are recognized for the region pending taxonomic clarifications
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**313. *Pipistrellus javanicus* (Gray, 1838)**1838. *Scotophilus javanicus* Gray, Mag. Zool. Bot., 2:498

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**Javan Pipistrelle**

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- Type locality: Java, Indonesia
- Synonyms: *Scotophilus javanicus* Gray, 1838  
*Pipistrellus camortae* Miller, 1902  
*Pipistrellus babu* Thomas, 1915  
*Pipistrellus peguensis* Sinha, 1969
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 Javan Pipistrelle
 

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- Subspecies: *Pipistrellus javanicus camortae* Miller, 1902  
*Pipistrellus javanicus babu* Thomas, 1915  
*Pipistrellus javanicus peguensis* Sinha, 1969
- Distribution: *Pipistrellus javanicus camortae* Miller, 1902  
 Endemic to India, Andaman and Nicobar Islands (on Nicobar Islands)  
*Pipistrellus javanicus babu* Thomas, 1915  
 Afghanistan—Laghman and Nangarhar Provinces  
 Bangladesh—Chittagong and Sylhet  
 India—Assam, Himachal Pradesh, Madhya Pradesh, Maharashtra,  
 Manipur, Meghalaya, Nagaland, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central and Mid-Western Nepal  
 Pakistan—Khyber Pakhtunkhwa and Punjab  
*Pipistrellus javanicus peguensis* Sinha, 1969  
 India—West Bengal
- Comments: Belongs to the *javanicus* subgroup of *pipistrellus* species group. Earlier treated as distinct species, the taxa *babu* Thomas, 1915 (Ellerman and Morrison-Scott 1951) and *camortae* Miller, 1902 (Soota and Chaturvedi 1980; Das 1990) are recognized as valid subspecies (Corbet and Hill 1992; Kock 1996; Bates and Harrison 1997). The occurrence of the taxon *peguensis* Sinha, 1969 in India is based on six specimens from Darjeeling collected in 1872 (Sinha 1990; Das 2003). The taxon *babu* Thomas, 1915 may possibly also occur in Bhutan
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**314. *Pipistrellus abramus* (Temminck, 1840)**1840. *Vespertilio abramus* Temminck, Mongr. Mamm., Tome 2:232

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 Japanese Pipistrelle
 

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- Type locality: Nagasaki, Kyushu, Japan
- Synonyms: *Vespertilio abramus* Temminck, 1840  
*Pipistrellus javanicus abramus* (Temminck, 1840)
- Subspecies: None
- Distribution: *Pipistrellus abramus* (Temminck, 1840)  
 India—Andhra Pradesh, Arunachal Pradesh, and Uttar Pradesh
- Comments: Belongs to the *javanicus* subgroup of *pipistrellus* species group. Some authorities included this taxon under *Pipistrellus javanicus* (Gray, 1838) (Corbet 1978; Corbet and Hill 1980, 1986; Honacki et al. 1982; Koopman 1993), while some treat it as distinct (Thomas 1928; Hill and Harrison 1987; Corbet and Hill 1992; Sinha 1999; Srinivasulu and Srinivasulu 2001; Simmons 2005). This taxon has been recently collected from Andhra Pradesh, India (Srinivasulu et al. 2011)
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**315. *Pipistrellus tenuis* (Temminck, 1840)**1840. *Vespertilio tenuis* Temminck, Monogr. Mamm., 2:229

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**Least Pipistrelle**

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- Type locality: Sumatra, Indonesia
- Synonyms: *Vespertilio tenuis* Temminck, 1840  
*Pipistrellus mimus* Wroughton, 1899  
*Pipistrellus mimus mimus* Wroughton, 1899  
*Pipistrellus principulus* Thomas, 1915  
*Pipistrellus mimus glaucillus* Wroughton, 1912  
*Pipistrellus mimus principulus* Thomas, 1915
- Subspecies: *Pipistrellus tenuis mimus* Wroughton, 1899
- Distribution: *Pipistrellus tenuis mimus* Wroughton, 1899  
 Afghanistan—Nangarhar Province  
 Bangladesh—Chittagong and Sylhet  
 India—Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Nagaland, Orissa, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, and West Bengal  
 Nepal—Central and Mid-Western Nepal  
 Pakistan—Khyber Pakhtunkhwa, Punjab, and Sindh  
 Sri Lanka—Central, North Western, Southern, Uva, and Western Provinces
- Comments: Belongs to the *coromandra* subgroup of *pipistrellus* species group. Ellerman and Morrison-Scott (1951) and Sinha (1999) considered *Pipistrellus mimus* Wroughton, 1899 to represent forms from South Asia. The taxon *glaucillus* Wroughton, 1912, considered earlier as distinct subspecies, has been synonymized following Sinha (1980). May possibly also occur in Bhutan
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**316. *Pipistrellus ceylonicus* (Kelaart, 1852)**1852. *Scotophilus ceylonicus* Kelaart, Prodr. Faun. Zeylanica, p. 22

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**Kelaart's Pipistrelle**

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- Type locality: Trincomalee, Sri Lanka
- Synonyms: *Scotophilus ceylonicus* Kelaart, 1852  
*Vesperugo indicus* Dobson, 1878  
*Pipistrellus chrysothrix* Wroughton, 1899  
*Pipistrellus ceylonicus chrysothrix* (Wroughton, 1899)  
*Pipistrellus ceylonicus subcanus* Thomas, 1915
- Subspecies: *Pipistrellus ceylonicus indicus* (Dobson, 1878)  
*Pipistrellus ceylonicus ceylonicus* (Kelaart, 1852)
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**Kelaart's Pipistrelle**

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- Distribution: *Pipistrellus ceylonicus indicus* (Dobson, 1878)  
 Bangladesh—No exact location  
 India—Andhra Pradesh, Bihar, Delhi, Goa, Gujarat, Jharkhand,  
 Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan,  
 Tamil Nadu, and West Bengal  
 Pakistan—Punjab and Sindh  
*Pipistrellus ceylonicus ceylonicus* (Kelaart, 1852)  
 Endemic to Sri Lanka, Central, Eastern, Uva, and Western Provinces
- Comments: Belongs to the *ceylonicus* subgroup of *pipistrellus* species group. Although the taxon *subcanus* Thomas, 1915 is recognized as valid subspecies (Simmons 2005), we follow Lal (1984), who reviewed the Indian forms of *ceylonicus* Kelaart, 1852, in retaining single subspecies from the mainland
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**317. *Pipistrellus paterculus* Thomas, 1915**1915. *Pipistrellus paterculus* Thomas, Jour. Bombay Nat. Hist. Soc., 24:32

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**Mount Popa Pipistrelle**

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- Type locality: Mount Popa, Myanmar
- Synonyms: *Pipistrellus abramus paterculus* Thomas, 1915
- Subspecies: *Pipistrellus paterculus paterculus* Thomas, 1915
- Distribution: *Pipistrellus paterculus paterculus* Thomas, 1915  
 India—Assam, Bihar, Jammu and Kashmir, Manipur, and Nagaland  
 Nepal—Central Nepal
- Comments: Belongs to the *javanicus* subgroup of *pipistrellus* species group. Earlier treated as subspecies of *Pipistrellus abramus* (Temminck, 1840) (Ellerman and Morrison-Scott 1951; Hill 1962; Soota and Chaturvedi 1980), this taxon is presently considered distinct (Hill and Harrison 1987; Corbet and Hill 1992; Bates and Harrison 1997; Bates et al. 1997; Hendrichsen et al. 2001b)
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**Genus *Scotozous* Dobson, 1875****Dormer's Pipistrelle**

This monotypic genus was considered as a subgenus of *Pipistrellus* Kaup, 1829 by Tate (1942), Ellerman and Morrison-Scott (1951), Corbet (1978), Koopman (1993, 1994), Bates and Harrison (1997), and Sinha (1999). Hill and Harrison (1987), Corbet and Hill (1992), and Simmons (2005) treated this as a distinct genus.

**318. *Scotozous dormeri* Dobson, 1875**1875. *Scotozous dormeri* Dobson, Proc. Zool. Soc. Lond., p. 373

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**Dormer's Pipistrelle**

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Type locality:	Bellary Hills, Mysore, Karnataka, India
Synonyms:	<i>Pipistrellus dormeri</i> (Dobson, 1875) <i>Scotozous dormeri caurinus</i> Thomas, 1915 <i>Pipistrellus dormeri caurinus</i> (Thomas, 1915)
Subspecies:	None
Distribution:	Endemic to South Asia <i>Scotozous dormeri</i> Dobson, 1875 Bangladesh—Dhaka and Rajshahi India—Andhra Pradesh, Assam, Bihar, Goa, Gujarat, Haryana, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal Pakistan—Punjab and Sindh
Comments:	Earlier treated under genus <i>Pipistrellus</i> Kaup, 1829 (Ellerman and Morrison-Scott 1951; Corbet 1978; Koopman 1993, 1994; Bates and Harrison 1997) and <i>Scotoecus</i> Thomas, 1901 (Menu 1987), presently treated as distinct genus (Tate 1942; Corbet and Hill 1980, 1991, 1992; Hill and Harrison 1987; Roberts 1977, 1997). May possibly also occur in Bhutan

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**Tribe Plecotinini Gray, 1866****Genus *Barbastella* Gray, 1821****Barbastelles****319. *Barbastella darjelingensis* (Hodgson, 1855)**1855. *Plecotus darjelingensis* Hodgson, In Horsfield, Ann. Mag. Nat. Hist., xvi, p. 103

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**Large Barbastelle**

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Type locality:	Darjeeling, West Bengal, India
Synonyms:	<i>Plecotus darjelingensis</i> Hodgson, 1855 in Horsfield, 1855 = <i>Synotus darjelingsis</i> (Hodgson, 1855) <i>Barbastellus darjelinensis</i> Dobson, 1875 (sometimes as <i>dargelinensis</i> ) = <i>Barbastella blanfordi</i> Bianchi, 1916
Subspecies:	None
Distribution:	<i>Barbastella darjelingensis</i> (Hodgson, 1855) Afghanistan—Konarha, Nangarhar, and Paktia provinces Bhutan—No exact location (Corbet and Hill, 1992) India—Assam, Himachal Pradesh, Jammu and Kashmir, Meghalaya, Sikkim, Uttarakhand, and West Bengal Nepal—Central, Eastern, Mid-Western, and Western Nepal Pakistan—Khyber Pakhtunkhwa
Comments:	The presence of this taxon in Bhutan and Nepal is based on Corbet and Hill (1992), where no exact locations are provided. See Benda and Mlíkovský (2008)

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## Genus *Otonycteris* Peters, 1859

### Hemprich's Long-eared Bat

#### 320. *Otonycteris hemprichii* Peters, 1859

1859. *Otonycteris hemprichii* Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, p. 223

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#### Desert Long-eared Bat (Hemprich's Desert Bat)

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Type locality:	Nile valley, south of Assuan, Egypt
Synonyms:	<i>Otonycteris cinereus</i> Satunin, 1909 <i>Otonycteris hemprichii cinerea</i> Satunin, 1909
Subspecies:	None
Distribution:	<i>Otonycteris hemprichii</i> Peters, 1859 Afghanistan—Balkh, Faryab, and Kabul Provinces India—Himachal Pradesh and Jammu and Kashmir (including Disputed Kashmir) Pakistan—Khyber Pakhtunkhwa
Comments:	The taxon <i>cinerea</i> Satunin, 1909 was treated as valid subspecies in South Asia (Ellerman and Morrison-Scott 1951; Corbet 1978; DeBlase 1980; Corbet and Hill 1992; Bates and Harrison 1997). However, no subspecies for this taxon are recognized (Horáček 1991; Horáček et al. 2000; Simmons 2005)

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## Genus *Plecotus* E. Geoffroy, 1818

### Long-eared Bats

The South Asian forms belonging to this genus was earlier accommodated into two species, namely, *Plecotus auritus* (Linnaeus, 1758) and *Plecotus austriacus* (Fischer, 1829) (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Bates and Harrison 1997). Recent works based on morphology and molecular taxonomy reveal that South Asian forms are distinct from these two species that presently does not occur in South Asia (Spitzenberger et al. 2006). Presently, three species are recognized from South Asia.

#### 321. *Plecotus homochrous* Hodgson, 1847

1847. *Plecotus homochrous* Hodgson, J. Asiatic Soc. Bengal, 16:895

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#### Hodgson's Long-eared Bat

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Type locality:	Nepal
Synonyms:	<i>Plecotus homochrous</i> Hodgson, 1847 <i>Plecotus puck</i> Barrett-Hamilton, 1907 <i>Plecotus auritus puck</i> Barret-Hamilton, 1907
Subspecies:	None
Distribution:	<i>Plecotus homochrous</i> Hodgson, 1847 India—Himachal Pradesh, Jammu and Kashmir, Sikkim, Uttarakhand, and West Bengal Nepal—Eastern, Mid-Western, and Western Nepal Pakistan—Punjab

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**Hodgson's Long-eared Bat**

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Comments: Belongs to *auritus* species group. Earlier, this species was considered a subspecies of *Plecotus auritus* (Linnaeus, 1758) (Ellerman and Morrison-Scott 1951; Corbet 1978; Corbet and Hill 1992; Bates and Harrison 1997; Sinha 1999), presently distinct (*see* Spitzenberger et al. 2006). Sanborn (1950) synonymized *puck* Barret-Hamilton, 1907 with this taxon. May possibly also occur in Bhutan

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**322. *Plecotus wardi* Thomas, 1911**1911. *Plecotus wardi* Thomas, Ann. Mag. Nat. Hist., 7:209

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**Ward's Long-eared Bat**

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Type locality: Leh, Ladakh, Jammu and Kashmir, India  
 Synonyms: *Plecotus auritus wardi* Thomas, 1911  
 Subspecies: None  
 Distribution: *Plecotus wardi* Thomas, 1911  
 Afghanistan—Balkh, Kabul, Konar, Nangarhar, and Paktia Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir) and Uttarakhand  
 Nepal—Western Nepal  
 Pakistan—Khyber Pakhtunkhwa

Comments: Belongs to *auritus* species group. Earlier treated under *Plecotus auritus* (Linnaeus, 1758) (Ellerman and Morrison-Scott 1951; Sinha 1999) and *Plecotus austriacus* (Fischer, 1829) (Corbet 1978; Gaisler 1970; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Horáček et al. 2000; Simmons 2005), this taxon is presently considered distinct (Spitzenberger et al. 2006)

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**323. *Plecotus strelkovi* Spitzenberger, 2006**2006. *Plecotus strelkovi* Spitzenberger, Zoological Scripta, 35:187–230

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**Strelkov's Long-eared Bat**

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Type locality: 20 km SE of Mikhaylovka near the eastern shore of Lake Yssykkul, Teploklyuchenka, Kyrgyzstan

Synonyms: None  
 Subspecies: None  
 Distribution: *Plecotus strelkovi* Spitzenberger, 2006  
 Afghanistan—Kabul Province

Comments: Belongs to *auritus* species group. Spitzenberger in Spitzenberger et al. (2006) described this new taxon and reported Afghanistan in its range based on specimen collected from Kabul present in the Berlin Museum

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**Tribe Vespertilionini Gray, 1821**

**Genus *Falsistrellus* Troughton, 1943**

**False Pipistrelles**

Following Hill and Harrison (1987), Corbet and Hill (1992) and Koopman (1993) considered *Falsistrellus* Troughton, 1943 as subgenus of *Pipistrellus* Kaup, 1829. Kitchener et al. (1986), Volleth and Heller (1994) and Simmons (2005) treat it as distinct genus. One species is known from South Asia.

**324. *Falsistrellus affinis* (Dobson, 1871)**

1871. *Vesperugo* (*Pipistrellus*) *affinis* Dobson, Proc. Asiatic Soc. Bengal, 213

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Chocolate Pipistrelle

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Type locality:	Bhamaw (now Bhamo), Yunnan (now Myanmar)
Synonyms:	<i>Vesperugo</i> ( <i>Pipistrellus</i> ) <i>affinis</i> Dobson, 1871 <i>Pipistrellus affinis</i> (Dobson, 1871)
Subspecies:	None
Distribution:	<i>Falsistrellus affinis</i> (Dobson, 1871) India—Kerala, Maharashtra, Tamil Nadu, Uttarakhand, and West Bengal Nepal—Central Nepal Sri Lanka—Central and Uva Provinces
Comments:	Earlier, forms from India and Sri Lanka have been included under <i>Pipistrellus mordax</i> Peters, 1866 (Wroughton 1916, 1918; Ellerman and Morrison-Scott 1951; Phillips 1980a), but, are in fact individuals of <i>Falsistrellus affinis</i> (Hill and Harrison 1987). May possibly also occur in Bhutan

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**Genus *Hypsugo* Kolenati, 1856**

**Pipistrelles**

Earlier included under *Pipistrellus* Kaup, 1829 (Ellerman and Morrison-Scott 1951). The forms belonging to this genus are unique from other pipistrelles in the absence of the upper premolar and the inverted L-shaped baculum (Horáček and Hanak 1985–1986; Tiunov 1986; Menu 1987; Ruedi and Arlettaz 1991; Volleth and Heller 1994; Volleth et al. 2001). However, Hill and Harrison (1987), Corbet and Hill (1992) and Koopman (1993) treated *Hypsugo* Kolenati, 1856 as subgenus of *Pipistrellus* Kaup, 1829. Two species are known from South Asia.

**325. *Hypsugo savii* (Bonaparte, 1837)**1837. *Vespertilio savii* Bonaparte, Fauna Ital., 1 fasc. 20

## Savi's Pipistrelle

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Type locality:	Pisa, Italy
Synonyms:	<i>Vespertilio savii</i> Bonaparte, 1837 <i>Pipistrellus savii</i> (Bonaparte, 1837) <i>Pipistrellus austenianus</i> Dobson, 1871 <i>Pipistrellus savii austenianus</i> Dobson, 1871 <i>Vesperugo</i> ( <i>Vesperus</i> ) <i>caucasicus</i> Satunin, 1901 <i>Pipistrellus savii caucasicus</i> (Satunin, 1901)
Subspecies:	<i>Hypsugo savii austenianus</i> (Dobson, 1871) <i>Hypsugo savii caucasicus</i> (Satunin, 1901)
Distribution:	<i>Hypsugo savii austenianus</i> (Dobson, 1871) Bangladesh—Sylhet India—Maharashtra and Meghalaya <i>Hypsugo savii caucasicus</i> (Satunin, 1901) Afghanistan—Baghlan, Faryab, and Konar Provinces India—Jammu and Kashmir (including Disputed Kashmir)
Comments:	The taxon <i>caucasicus</i> Satunin, 1901 was wrongly included under <i>Eptesicus nasutus</i> (Dobson, 1877) by Tate (1942). Following Kuzyakin (in Bobrinsky et al. 1944), Ellerman and Morrison-Scott (1951), and Neuhauser (1970), considered them as forms of <i>Pipistrellus savii</i> (Bonaparte, 1837). The taxon <i>austenianus</i> Dobson, 1871 considered valid following Sinha (1999), Srinivasulu and Srinivasulu (2001), and Simmons (2005)

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**326. *Hypsugo cadornae* (Thomas, 1916)**1916. *Pipistrellus cadornae* Thomas, Jour. Bombay Nat. Hist. Soc., 24:416

## Cadorna's Pipistrelle (Thomas's Pipistrelle)

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Type locality:	Darjeeling, India
Synonyms:	<i>Pipistrellus cadornae</i> Thomas, 1916 <i>Pipistrellus savii cadornae</i> Thomas, 1916
Subspecies:	None
Distribution:	<i>Hypsugo cadornae</i> (Thomas, 1916) India—Sikkim and West Bengal
Comments:	Earlier listed as subspecies of <i>Pipistrellus savii</i> (Bonaparte, 1837) (Ellerman and Morrison-Scott 1951), upgraded to a distinct species (Hill 1962; Bates and Harrison 1997). Lekagul and McNeely (1977) erroneously reported Assam instead of West Bengal in its range. May possibly also occur in Bhutan

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**Genus *Ia* Thomas, 1902****Great Evening Bat**

This taxon was earlier considered as a subgenus of *Pipistrellus* Kaup, 1829 (Simpson 1945; Ellerman and Morrison-Scott 1951). Upgraded to generic status based on its bacular morphology (Topál 1970a).

**327. *Ia io* Thomas, 1902**

1902. *Ia io* Thomas, Ann. Mag. Nat. Hist., (7), 10:164

## Great Evening Bat

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Type locality:	Hupeh, Chungyang, China
Synonyms:	<i>Pipistrellus io</i> (Thomas, 1902)
Subspecies:	None
Distribution:	<i>Ia io</i> Thomas, 1902 India—Meghalaya Nepal—Western Nepal
Comments:	See Csorba (1998) for distribution

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**Genus *Philetor* Thomas, 1902****Rohu's Bat****328. *Philetor brachypterus* Temminck, 1840**

1840. *Vespertilio brachypterus* Temminck, Mongr. Mamm., 2:215

## Rohu's Bat (Short-winged Pipistrelle)

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Type locality:	Padag district, Sumatra, Indonesia
Synonyms:	<i>Vespertilio brachypterus</i> Temminck, 1840
Subspecies:	None
Distribution:	<i>Philetor brachypterus</i> (Temminck, 1840) India—Sikkim Nepal—Central and Eastern Nepal
Comments:	Reviewed by Hill (1966, 1971b, 1983), Corbet and Hill (1992), Flannery (1995a, b), Bates and Harrison (1997), and Bonaccorso (1998)

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**Genus *Tylonycteris* Peters, 1872**

**Bamboo Bats**

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

1840. *Vespertilio pachypus* Temminck, Monogr. Mamm., 2:217, pl. 54, fig. 4, 5, 6

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Lesser Bamboo Bat (Lesser Flat-headed Bat)

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- Type locality: Bantam, Java, Indonesia
- Synonyms: *Vespertilio pachypus* Temminck, 1840  
*Scotophilus fulvidus* Blyth, 1859  
*Tylonycteris pachypus fulvida* (Blyth, 1859)  
*Tylonycteris rubidus* Thomas, 1915  
*Tylonycteris aurex* Thomas, 1915
- Subspecies: *Tylonycteris pachypus fulvidus* (Blyth, 1859)  
*Tylonycteris pachypus aurex* Thomas, 1915
- Distribution: *Tylonycteris pachypus fulvidus* (Blyth, 1850)  
 Bangladesh—Chittagong and Sylhet  
 India—Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, and West Bengal  
*Tylonycteris pachypus aurex* (Thomas, 1915)  
 Endemic to India, Andaman Islands, Karnataka, and Kerala
- Comments: See Srinivasulu and Srinivasulu (2005) for remarks on distribution of this taxon in Bangladesh. May possibly also occur in Bhutan
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**330. *Tylonycteris robustula* Thomas, 1915**

1915. *Tylonycteris robustula* Thomas, Ann. Mag. Nat. Hist., (8) 15:227

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Greater Bamboo Bat (Greater Flat-headed Bat)

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- Type locality: Upper Sarawak, Malaysia
- Synonyms: None
- Subspecies: None
- Distribution: *Tylonycteris robustula* Thomas, 1915  
 India—Mizoram
- Comments: None
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**Genus *Vespertilio* Linnaeus, 1758**

**Particolored Bats**

**331. *Vespertilio murinus* Linnaeus, 1758**

1758. *Vespertilio murinus* Linnaeus, Syst. Nat. 10th ed., 1:32

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Particoloured Bat

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Type locality:	Near Uppasala, Sweden
Synonyms:	None
Subspecies:	<i>Vespertilio murinus murinus</i> Linnaeus, 1758
Distribution:	<i>Vespertilio murinus murinus</i> Linnaeus, 1758 Afghanistan—Faryab and Nangarhar Provinces India—Jammu and Kashmir (in Disputed Kashmir)
Comments:	In India, known only from a single location, namely, Gilgit, Jammu and Kashmir (in Disputed Kashmir) (Blanford 1891)

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**Subfamily Myotinae Tate, 1942**

Volleth and Heller (1994) and Simmons (1998) have reviewed this subfamily. Fifteen species belonging to one genus, *Myotis* Kaup, 1829, are found in South Asia.

**Genus *Myotis* Kaup, 1829**

**Mouse-eared Bats**

Earlier three subgenera (namely, *Myotis* Kaup, 1829, *Selysius* Bonaparte, 1841 and *Leuconoe* Boie, 1830) were recognized. Following recent studies by Mayer and von Helversen (2001) and Ruedi and Mayer (2001), *Selysius* Bonaparte, 1841 and *Leuconoe* Boie, 1830 are no longer valid subgenera. Fifteen species are represented in South Asia.

**332. *Myotis emarginatus* (E. Geoffroy, 1806)**

1806. *Vespertilio emarginatus* E. Geoffroy, Ann. Mus. H. N. Paris, 8:198

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Geoffroy's *Myotis* (Geoffroy's Bat)

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Type locality:	Charlemont, Givet, Ardennes, France
Synonyms:	<i>Vespertilio emarginatus</i> E. Geoffroy, 1806 <i>Vespertilio desertorum</i> Dobson, 1875 <i>Myotis lanaceus</i> Thomas, 1920
Subspecies:	<i>Myotis emarginatus desertorum</i> (Dobson, 1875)
Distribution:	<i>Myotis emarginatus desertorum</i> (Dobson, 1875) Afghanistan—Badakhshan Province
Comments:	Probably may also occur in Pakistan (Roberts 1997)

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**333. *Myotis formosus* (Hodgson, 1835)**1835. *Vespertilio formosa* Hodgson, J. Asiat. Soc. Bengal, 4:700

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**Hodgson's Myotis (Hodgson's Bat)**

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Type locality:	Nepal
Synonyms:	<i>Vespertilio formosa</i> Hodgson, 1835 <i>Kerivoula pallida</i> Blyth, 1863 <i>Vespertilio auratus</i> Dobson, 1871 <i>Vespertilio dobsoni</i> Andersen, 1881 <i>Vespertilio andersoni</i> Trouessart, 1897 ( <i>nomen novum</i> for <i>Vespertiliodobsoni</i> Andersen, 1881) <i>Myotis formosus auratus</i> (Dobson, 1871) <i>Myotis formosus andersoni</i> (Trouessart, 1897)
Subspecies:	<i>Myotis formosus formosus</i> (Hodgson, 1835)
Distribution:	<i>Myotis formosus formosus</i> (Hodgson, 1835) Afghanistan—Nangarhar Province Bangladesh—Sylhet India—Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Maharashtra, Meghalaya, Mizoram, Punjab, Sikkim, Uttarakhand, and West Bengal Nepal—Central and Western Nepal
Comments:	Ellerman and Morrison-Scott (1951) and Sinha (1986) treated the Darjeeling (West Bengal) and the Chaibasa (Jharkhand) populations as <i>Myotis formosus formosus</i> (Hodgson, 1835) and those from Purnea (Bihar) as <i>Myotis formosus andersoni</i> (Trouessart, 1897). Bates and Harrison (1997) treated the populations of Purnea that are larger in size as <i>Myotis formosus auratus</i> (Dobson, 1871). However, in light of Blanford's (1891) statement that <i>Vespertilio dobsoni</i> Andersen, 1881 (subsequently known as <i>Vespertilio andersoni</i> Trouessart, 1897) being found on a very large specimen of <i>Vespertilio formosa</i> Hodgson, 1835 and in want of fresh specimens, we accept only the nominate race as valid for the region. May possibly also occur in Bhutan

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**334. *Myotis hasseltii* (Temminck, 1840)**1840. *Vespertilio hasseltii* Temminck, Mongr. Mamm., 2:225

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**Lesser Large-footed Myotis (Hasselt's Large-footed Myotis)**

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Type locality:	Bantam, Java, Indonesia
Synonyms:	<i>Vespertilio hasseltii</i> Temminck, 1840 <i>Leuconoe hasseltii</i> Wroughton, 1918 (not Temminck, 1840)
Subspecies:	<i>Myotis hasseltii hasseltii</i> (Temminck, 1840)
Distribution:	<i>Myotis hasseltii hasseltii</i> (Temminck, 1840) India—West Bengal Sri Lanka—Eastern, North Central, and Southern Provinces
Comments:	Earlier included under <i>Myotis adversus</i> Horsfield, 1824 (Ellerman and Morrison-Scott 1951), now considered distinct (Hill 1983; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Simmons 2005)

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**335. *Myotis horsfieldii* (Temminck, 1840)**1840. *Vespertilio horsfieldii* Temminck, Mongr. Mamm., 2:226

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**Horsfield's Myotis (Horsfield's Bat)**

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- Type locality: Mt. Gede, Java, Indonesia
- Synonyms: *Vespertilio horsfieldii* Temminck, 1840  
*Myotis dryas* Andersen, 1907  
*Myotis adversus dryas* Andersen, 1907  
*Leuconoe peshwa* Thomas, 1915  
*Myotis adversus peshwa* (Thomas, 1915)
- Subspecies: *Myotis horsfieldii dryas* Andersen, 1907  
*Myotis horsfieldii peshwa* (Thomas, 1915)
- Distribution: *Myotis horsfieldii dryas* Andersen, 1907  
Endemic to India, Nicobar Islands of the Andaman and Nicobar Islands  
*Myotis horsfieldii peshwa* (Thomas, 1915)  
Endemic to India, Goa, Karnataka, Kerala, Madhya Pradesh, Maharashtra, and Tamil Nadu
- Comments: Earlier included under *Myotis adversus* Horsfield, 1824 (Ellerman and Morrison-Scott 1951), the taxa *dryas* Andersen, 1907 and *peshwa* Thomas, 1915, are considered subspecies of this taxon (Hill 1983; Corbet and Hill 1992; Bates and Harrison 1997; Simmons 2005)
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**336. *Myotis muricola* (Gray, 1846)**1846. *Vespertilio muricola* Gray, Cat. Hodgson Coll. Brit. Mus., p. 4

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**Nepalese Whiskered Myotis (Nepalese Whiskered Bat)**

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- Type locality: Nepal
- Synonyms: *Vespertilio muricola* Hodgson, 1841 (*nomen nudum*)  
*Vespertilio muricola* Gray, 1846  
*Myotis mystacinus muricola* (Gray, 1846)  
*Vespertilio caliginosus* Tomes, 1859  
*Myotis mystacinus caliginosus* (Tomes, 1859)  
*Vespertilio blanfordi* Dobson, 1871
- Subspecies: *Myotis muricola muricola* (Gray, 1846)  
*Myotis muricola caliginosus* (Tomes, 1859)
- Distribution: *Myotis muricola muricola* (Gray, 1846)  
Bhutan—No exact location  
India—Assam, Jharkhand, Meghalaya, Mizoram, Sikkim, and West Bengal  
Nepal—Central Nepal  
*Myotis muricola caliginosus* (Tomes, 1859)  
Afghanistan—Konar Province  
India—Himachal Pradesh, Jammu and Kashmir, and Uttarakhand  
Pakistan—Khyber Pakhtunkhwa and Punjab
- Comments: Earlier included under *Myotis mystacinus* (Kuhl, 1819) (Ellerman and Morrison-Scott 1951), the taxon *muricola* Gray, 1846 was upgraded to specific status (Corbet 1978; Hill 1983; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997) with inclusion of the taxon *caliginosus* Tomes, 1859. All forms recorded from Afghanistan and Pakistan that were treated as *Myotis mystacinus* by Habibi (2003) and Roberts (1977, 1997) are hitherto referable to this species
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**337. *Myotis siligorensis* (Horsfield, 1855)**1855. *Vespertilio siligorensis* Horsfield, Ann. Mag. Nat. Hist., (2) 16:102

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**Himalayan Whiskered Myotis (Himalayan Whiskered Bat)**

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- Type locality: Siligori, Darjeeling District, West Bengal, India  
 Synonyms: *Vespertilio siligorensis* Horsfield, 1855  
*Vespertilio darjilingensis* Horsfield, 1855  
 Subspecies: *Myotis siligorensis siligorensis* (Horsfield, 1855)  
 Distribution: *Myotis siligorensis siligorensis* (Horsfield, 1855)  
 India—Meghalaya, Sikkim, Uttarakhand, and West Bengal  
 Nepal—Central Nepal  
 Comments: May possibly also occur in Bhutan
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**338. *Myotis blythii* (Tomes, 1857)**1857. *Vespertilio blythii* Tomes, Proc. Zool. Soc. Lond., p. 53

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**Lesser Mouse-eared Myotis (Lesser Mouse-eared Bat)**

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- Type locality: Nasirabad, Rajasthan, India  
 Synonyms: *Vespertilio blythii* Tomes, 1857  
*Vespertilio murinoides* Dobson, 1873  
 = *Vespertilio dobsoni* Trouessart, 1878  
 Subspecies: *Myotis blythii blythii* (Tomes, 1857)  
 Distribution: *Myotis blythii blythii* (Tomes, 1857)  
 Afghanistan—Faryab, Ghazni, Kabul, Konar, Laghman, Parvan, and Zabol Provinces  
 India—Jammu and Kashmir, Himachal Pradesh, Meghalaya, Rajasthan, and Uttarakhand  
 Nepal—Eastern Nepal  
 Pakistan—Khyber Pakhtunkhwa  
 Comments: None
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**339. *Myotis annectans* (Dobson, 1871)**1871. *Pipistrellus annectans* Dobson, Proc. Asiat. Soc. Bengal, p. 213

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**Hairy-faced Myotis (Hairy-faced Bat)**

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- Type locality: Samagooting, Naga Hills, Nagaland, India  
 Synonyms: *Pipistrellus annectans* Dobson, 1871  
*Vesperugo anectens* Dobson, 1876  
*Myotis primula* Thomas, 1920  
*Myotis annectans primula* Thomas, 1920  
 Subspecies: None  
 Distribution: *Myotis annectans* (Dobson, 1871)  
 India—Nagaland and West Bengal
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(continued)

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**Hairy-faced Myotis (Hairy-faced Bat)**

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Comments: Earlier workers assigned this taxon under the genus *Pipistrellus* Kaup, 1829 due to the absence of second upper and lower premolars in the specimens collected (Ellerman and Morrison-Scott 1951). However, Topál (1970b) compared the original series and fresh specimens collected from the type locality and found that the type was an abnormal specimen of *Myotis* Kaup, 1829 lacking second upper and lower premolars. Additionally, Ellerman and Morrison-Scott (1951) considered the taxon *Myotis primula* Thomas, 1920 (now synonymized with the present taxon) allied to *Myotis emarginatus* (Geoffroy, 1806)

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**340. *Myotis laniger* (Peters, 1871)**1871. *Vespertilio laniger* Peters, Proc. Zool. Soc. London, 3 (1870):617

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**Chinese Water Myotis**

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Type locality: Amoy, Fukien, China  
 Synonyms: *Vespertilio laniger* Peters, 1871  
*Myotis daubentonii laniger* (Peters, 1871)  
 Subspecies: None  
 Distribution: *Myotis laniger* (Peters, 1871)  
 India—Meghalaya  
 Comments: Earlier included under *Myotis daubentonii* (Kuhl, 1817) (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997), now considered distinct (Topál 1974, 1997; Bates et al. 1999; Simmons 2005)

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**341. *Myotis nipalensis* (Dobson, 1871)**1871. *Vespertilio nipalensis* Dobson, Proc. Zool. Soc. Bengal, 1871:214

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**Nepal Myotis**

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Type locality: Khatmandu, Nepal  
 Synonyms: *Vespertilio pallidiventrtris* Hodgson, 1844 (*nomen nudum*)  
*Vespertilio nipalensis* Dobson, 1871  
*Myotis mystacinus nipalensis* (Dobson, 1871)  
*Myotis meinertzhageni* Thomas, 1926  
 Subspecies: *Myotis nipalensis nipalensis* (Dobson, 1871)  
 Distribution: *Myotis nipalensis nipalensis* (Dobson, 1871)  
 Afghanistan—Balkh, Faryab, Kabul, and Konduz Provinces  
 India—Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), Meghalaya, and West Bengal  
 Nepal—Central Nepal  
 Pakistan—Khyber Pakhtunkhwa and Punjab  
 Comments: Earlier treated distinct (Blanford, 1891), this taxon was included under *Myotis mystacinus* (Kuhl, 1819) (Ellerman and Morrison-Scott, 1951). Treated distinct by Benda and Tsytsulina (2000). May possibly also occur in Bhutan

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**342. *Myotis longipes* (Dobson, 1873)**1873. *Vespertilio longipes* Dobson, Proc. Asiat. Soc. Bengal, p. 110

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**Kashmir Cave Myotis (Kashmir Cave Bat)**

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- Type locality: Caves of Bhima Devi, Jammu and Kashmir, India
- Synonyms: *Myotis theobaldi* Blyth, 1855  
*Vespertilio macropus* Dobson, 1872 (not of Gould, 1854)  
*Vespertilio longipes* Dobson, 1873 (renaming of preoccupied nomen *macropus*)  
*Vespertilio megalopus* Dobson, 1875
- Subspecies: None
- Distribution: *Myotis longipes* (Dobson, 1873)  
 Afghanistan—Lowgar and Nangarhar Provinces  
 India—Jammu and Kashmir and Meghalaya  
 Nepal—Western Nepal
- Comments: Ellerman and Morrison-Scott (1951) considered this species as allied to *Myotis capaccinii* Bonaparte, 1837, a view negated by Hanak and Gaisler (1969), Corbet (1978), Bates and Harrison (1997), who stated it to be a distinct species. The specimen of *Myotis theobaldi* Blyth, 1855 from caves near Matur Nag, Jammu and Kashmir, India that has been sometimes included under *Myotis longipes* (Dobson, 1873) as a senior synonym with doubt, is unidentifiable (Thomas 1915). Blanford (1891, p. 331) stated that “*Myotis theobaldi* Blyth, 1855 was similar to *V. longipes*, for the two agree in dimensions and both are characterized by large feet, but it is impossible to identify *Myotis theobaldi* for the types have been lost”
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**343. *Myotis montivagus* (Dobson, 1874)**1874. *Vespertilio montivagus* Dobson, J. Asiat. Soc. Bengal, 43, 2:237

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**Burmese Whiskered Myotis (Burmese Whiskered Bat)**

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- Type locality: Hotha, Yunnan, China
- Synonyms: *Vespertilio montivagus* Dobson, 1874  
*Myotis mystacinus montivagus* (Dobson, 1874)  
*Myotis peytoni* Wroughton and Ryley, 1913
- Subspecies: *Myotis montivagus montivagus* (Dobson, 1874)  
*Myotis montivagus peytoni* Wroughton and Ryley, 1913
- Distribution: *Myotis montivagus montivagus* (Dobson, 1874)  
 India—Mizoram  
*Myotis montivagus peytoni* Wroughton and Ryley, 1913  
 Endemic to India, Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu
- Comments: Earlier considered subspecies of *Myotis mystacinus* (Kuhl, 1819) (Ellerman and Morrison-Scott 1951), presently treated distinct (Hill 1962; Hill and Francis 1984; Das 1987). The taxon *peytoni* Wroughton and Ryley, 1913 was treated as an allied species of *Myotis emarginatus* (Geoffroy, 1806) (Ellerman and Morrison-Scott 1951), but Findley (1972) opined that *montivagus* Dobson, 1874 and *peytoni* Wroughton and Ryley, 1913 to be distinct and has been treated as subspecies of this taxon (Koopman 1993; Bates and Harrison 1997). Recently reported from Mizoram and Tamil Nadu (Mandal et al. 2000; Vanitharani et al. 2005)
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**344. *Myotis sicarius* Thomas, 1915**1915. *Myotis sicarius* Thomas, Jour. Bombay Nat. Hist. Soc., 23:608

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**Mandelli's Mouse-eared Myotis (Mandelli's Mouse-eared Bat)**

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Type locality:	Sikkim, India
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to South Asia <i>Myotis sicarius</i> Thomas, 1915 India—Sikkim and West Bengal Nepal—Central and Western Nepal
Comments:	None

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**345. *Myotis bucharensis* Kuzyakin, 1950**1950. *Myotis bucharensis* Kuzyakin, Letuchieye myschi, Izd. Sovetskaya Nauk, Moscow, 286

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**Bocharic Myotis (Bokhara Whiskered Bat)**

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Type locality:	Ayvad, Kurgan-Tjubinskaja, Tajikistan
Synonyms:	None
Subspecies:	None
Distribution:	Extinct in South Asia <i>Myotis bucharensis</i> Kuzyakin, 1950 Afghanistan—Locality unknown
Comments:	Afghanistan populations are possibly extinct (Horáček et al. 2000). Habibi (2003) did not include this species in his work

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**346. *Myotis csorbai* Topál, 1997**1997. *Myotis csorbai* Topál, Acta Zool. acad. Scient. Hungaricae, 43:377

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**Csorba's Mouse-eared Myotis (Csorba's Mouse-eared Bat)**

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Type locality:	Pokhara, Syangja district, Nepal
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Nepal <i>Myotis csorbai</i> Topál, 1997 Western Nepal
Comments:	Known from the type locality and its vicinity (Topál 1997)

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**Subfamily Murininae Miller, 1907**

This subfamily includes representatives belonging to three genera (namely, *Murina* Gray, 1842, *Harpiola* Thomas, 1915, and *Harpiocephalus* Gray, 1842) in South Asia. Eight species occur in South Asia.

**Genus *Harpiocephalus* Gray, 1842**

**Hairy-winged Bats**

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

1840. *Vespertilio harpia* Temminck, Monogr. Mamm., 2:219, pl. 55

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Lesser Hairy-winged Bat

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- Type locality: Mt. Gede, Java, Indonesia
- Synonyms: *Vespertilio harpia* Temminck, 1840  
 =*Harpiocephalus rufus* Gray, 1842  
*Noctulinia lasyura* Hodgson, 1847  
*Vespertilio pearsonii* Tomes, 1858  
*Harpiocephalus mordax* Thomas, 1923  
*Harpiocephalus harpia mordax* Thomas, 1923
- Subspecies: *Harpiocephalus harpia lasyurus* (Hodgson, 1847)  
*Harpiocephalus harpia madrassius* Thomas, 1923
- Distribution: *Harpiocephalus harpia lasyurus* (Hodgson, 1847)  
 India—Assam, Kerala, Meghalaya, Mizoram, Sikkim, Tamil Nadu, and West Bengal  
*Harpiocephalus harpia madrassius* Thomas, 1923  
 Endemic to India—Tamil Nadu
- Comments: Earlier the taxon *madrassius* Thomas, 1923 was considered as a subspecies of this taxon (Ellerman and Morrison-Scott 1951), but later was synonymized with *Harpiocephalus harpia lasyurus* (Hodgson, 1847) (Das 1986b; Bates and Harrison 1997). Simmons (2005), however, recognizes *madrassius* Thomas, 1923 as valid subspecies. Earlier, the taxon *mordax* Thomas, 1923 was either treated as subspecies of *Harpiocephalus harpia* (Temminck, 1840) (Ellerman and Morrison-Scott 1951) or as distinct species (Das 1986b; Hill and Francis 1984; Corbet and Hill 1992; Koopman 1993; Sinha 1999; Hendrichsen et al. 2001b; Simmons 2005). Recent studies indicate that the description of the taxon *mordax* Thomas, 1923 is based on female specimens of *Harpiocephalus harpia* (Temminck, 1840) (see Matveev 2005; Matveev and Csorba 2007), thus treated here as junior synonym. This taxon may probably also occur in Bhutan and Bangladesh (Molur et al. 2002)
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**Genus *Murina* Gray, 1842**

**Tube-nosed Bats**

Earlier included subgenus *Harpiola* Thomas, 1915 (*see* comments therein). This genus includes five species from South Asia.

**348. *Murina aurata* Milne-Edwards, 1872**1872. *Murina aurata* Milne-Edwards, Rech. Hist. Nat. Mammifères, p. 250, pl. 37b, fig. 1, pl. 37c, fig. 2

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**Little Tube-nosed Bat (Tibetan Tube-nosed Bat)**

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Type locality:	Moupin, Szechwan, China
Synonyms:	<i>Murina aurata</i> Miller, 1907
Subspecies:	None
Distribution:	<i>Murina aurata</i> Milne-Edwards, 1872 India—Meghalaya and Sikkim Nepal—Mid-Western and Western Nepal
Comments:	None

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**349. *Murina cyclotis* Dobson, 1872**1872. *Murina cyclotis* Dobson, Proc. Asiat. Soc. Bengal, p. 210

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**Round-eared Tube-nosed Bat**

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Type locality:	Darjeeling, India
Synonyms:	<i>Murina eileenae</i> Phillips, 1932
Subspecies:	<i>Murina cyclotis cyclotis</i> Dobson, 1872 <i>Murina cyclotis eileenae</i> Phillips, 1932
Distribution:	<i>Murina cyclotis cyclotis</i> Dobson, 1872 India—Andhra Pradesh, Meghalaya, Mizoram, Nicobar Islands, Sikkim, Tamil Nadu, and West Bengal Nepal—Western Nepal <i>Murina cyclotis eileenae</i> Phillips, 1932 Endemic to Sri Lanka, Central, and North Western Province
Comments:	Excepting Bates and Harrison (1997), who synonymized <i>eileenae</i> Phillips, 1932 with the nominate subspecies, many authorities treat it as distinct subspecies (Ellerman and Morrison-Scott 1951; Hill 1964; Corbet and Hill 1992; Koopman 1993; Simmons 2005). Recently reported from Tamil Nadu (Vanitharani et al. 2005)

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**350. *Murina huttoni* (Peters, 1872)**1872. *Harpyiocephalus huttoni* Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, p. 257

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**Hutton's Tube-nosed Bat**

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Type locality:	Dehra Dun, Uttar Pradesh, India
Synonyms:	None
Subspecies:	<i>Murina huttoni huttoni</i> (Peters, 1872)
Distribution:	<i>Murina huttoni huttoni</i> (Peters, 1872) India—Arunachal Pradesh, Assam, Jammu and Kashmir, Meghalaya, Uttarakhand, and West Bengal Nepal—Central Nepal Pakistan—Khyber Pakhtunkhwa
Comments:	Does not include <i>tubinaris</i> Scully, 1881 (see comments therein). This taxon has been reviewed by Sinha (1999) and Hendrichsen et al. (2001b). May possibly also occur in Bhutan

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**351. *Murina leucogaster* Milne-Edwards, 1872**

1872. *Murina leucogaster* Milne-Edwards, Rech. Hist. Nat. Mammifères, p. 252, pl. 37b, fig. 1, pl. 37c, fig. 3

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**Greater Tube-nosed Bat (Rufous Tube-nosed Bat)**


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Type locality:	Moupin, Szechwan, China
Synonyms:	<i>Murina leucogastra</i> Thomas, 1899 <i>Murina rubex</i> Thomas, 1916
Subspecies:	<i>Murina leucogaster rubex</i> Thomas, 1916
Distribution:	<i>Murina leucogaster rubex</i> Thomas, 1916 India—West Bengal Nepal—Central Nepal
Comments:	Bates and Harrison (1997) synonymized <i>rubex</i> Thomas, 1916 with <i>Murina leucogaster</i> Milne-Edwards, 1872 finding no difference between it and the nominate race. Simmons (2005) recognizes <i>rubex</i> Thomas, 1916 as valid subspecies. This taxon may probably occur in Bhutan

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**352. *Murina tubinaris* (Scully, 1881)**

1881. *Harpyiocephalus tubinaris* Scully, Proc. Zool. Soc. London, p. 200

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**Scully's Tube-nosed Bat**


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Type locality:	Moupin, Szechwan, China
Synonyms:	<i>Harpyiocephalus tubinaris</i> Scully, 1881 <i>Murina huttoni tubinaris</i> (Scully, 1881)
Subspecies:	None
Distribution:	<i>Murina tubinaris</i> (Scully, 1881) India—Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir, Meghalaya, Mizoram, Sikkim, and West Bengal Pakistan—Khyber Pakhtunkhwa
Comments:	Earlier treated as subspecies of <i>Murina huttoni</i> (Peters, 1872) (Tate 1941b; Ellerman and Morrison-Scott 1951), this taxon is treated as a distinct species (Hill 1964; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Sinha 1999; Hendrichsen et al. 2001b; Simmons 2005)

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**Genus *Harpiola* Thomas, 1915****Peter's Tube-nosed Bat**

The genus *Harpiola* was erected by Thomas (1915) to accommodate *Murina grisea* Peters, 1872 that differed from the other known tube-nosed bats in its cranial morphology. However, owing to paucity of material this was treated as subgenus of *Murina* Gray, 1842 by Ellerman and Morrison-Scott (1951), Corbet and Hill (1992), Koopman (1993) and Bates and Harrison (1997). Bhattacharyya (2002) collected an additional specimen from Mizoram, India and resurrected *Harpiola* Thomas, 1915 to generic level. Though Simmons (2005) does not recognize *Harpiola* Thomas, 1915 as distinct genus, we follow Bhattacharyya (2002) and recognize the taxon *Harpiola* Thomas, 1915 as distinct.

**353. *Harpiola grisea* (Peters, 1872)**1872. *Murina grisea* Peters, Monatsb. K. Preuss. Akad. Wiss. Berlin, p. 258

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**Peter's Tube-nosed Bat**

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Type locality:	Jeripanee, Mussooree, Dehra Dun, Uttar Pradesh, India
Synonyms:	<i>Murina grisea</i> Peters, 1872
Subspecies:	None
Distribution:	Endemic to India <i>Harpiola grisea</i> (Peters, 1872) Mizoram and Uttarakhand
Comments:	Prior to Bhattacharyya (2002), this taxon was known only by type specimen. Bhattacharyya (2002) collected another specimen from Mizoram and after a detailed cranial study resurrected the genus <i>Harpiola</i> Thomas, 1915. Also see Kuo et al. (2006)

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**Subfamily Kerivoulinae Miller, 1907**Three species belonging to one genus, *Kerivoula* Gray, 1842, are found in South Asia**Genus *Kerivoula* Gray, 1842****Woolly Bats**

Three species are known from South Asia.

**354. *Kerivoula picta* (Pallas, 1767)**1767. *Vespertilio pictus* Pallas, Spicil. Zool., 3:7

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**Painted Woolly Bat**

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Type locality:	Ternate Island, Molucca Islands, Indonesia
Synonyms:	<i>Vespertilio pictus</i> Pallas, 1767 <i>Vespertilio kirivoula</i> Cuvier, 1832
Subspecies:	None
Distribution:	<i>Kerivoula picta picta</i> (Pallas, 1767) Bangladesh—Dhaka India—Andhra Pradesh, Assam, Goa, Karnataka, Kerala, Maharashtra, Orissa, Rajasthan, Sikkim, Tamil Nadu, and West Bengal Nepal—Western Nepal Sri Lanka—Central, Eastern, North Central, Sabaragamuwa, Southern, and Western Provinces
Comments:	May possibly also occur in Bhutan

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**355. *Kerivoula hardwickii* (Horsfield, 1824)**

1824. *Vespertilio hardwickii* Horsfield, Zool. Res. Java, part 8, p. 4. (un no.) of *Vespertilio Temminckii* acct

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**Hardwicke's Woolly Bat (Hardwicke's Forest Bat)**


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- Type locality: Java, Indonesia
- Synonyms: *Vespertilio hardwickii* Horsfield, 1824  
*Kerivoula fusca* Dobson, 1871  
*Kerivoula depressa* Miller, 1906  
*Kerivoula hardwickii depressa* Miller, 1906  
*Kerivoula crypta* Wroughton and Ryley, 1913  
*Kerivoula hardwickii crypta* Wroughton and Ryley, 1913  
*Kerivoula malpasi* Phillips, 1932  
*Kerivoula hardwickii malpasi* Phillips, 1932
- Subspecies: None
- Distribution: *Kerivoula hardwickii* (Horsfield, 1824)  
 Bangladesh—No exact location  
 India—Assam, Jammu and Kashmir, Karnataka, Meghalaya, Mizoram, Nagaland, and West Bengal  
 Pakistan—Punjab  
 Sri Lanka—Central Province
- Comments: Ellerman and Morrison-Scott (1951) listed four subspecies from the range. Bates and Harrison (1997) provisionally treated all specimens known from South Asia as belonging to *Kerivoula hardwickii depressa* (Miller, 1902). We do not recognize any subspecies in South Asia following Sinha (1999) and Simmons (2005)
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**356. *Kerivoula lenis* Thomas, 1916**

1916. *Kerivoula lenis* Thomas, J. Bombay Nat. Hist. Soc., 24:417

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**Lenis Woolly Bat**


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- Type locality: Calcutta, Bengal (West Bengal), India
- Synonyms: *Kerivoula papillosa lenis* Thomas, 1916
- Subspecies: None
- Distribution: *Kerivoula lenis* Thomas, 1916  
 India—Tamil Nadu and West Bengal
- Comments: Though considered a subspecies of *Kerivoula papillosa* (Temminck, 1840), the status of the taxon *lenis* Thomas, 1916, remained uncertain (Ellerman and Morrison-Scott 1951; Hill 1965; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997) till recently. A study on the additional specimen of *Kerivoula lenis* Thomas 1916 collected in Tirunelveli district, Tamil Nadu in 2002 by Vanitharani et al. (2003) reports it to be distinct from *papillosa* Temminck, 1840
-

**Family Miniopteridae Miller, 1907**

**Long-fingered Bats**

Till recent considered a subfamily of Vespertilionidae (Maeda 1982; Hill 1983; Corbet and Hill 1992; Koopman 1993; Peterson et al. 1995; Simmons 2005). Treated as a distinct family by Kawai et al. (2002), Hofer and Van Den Bussche (2003), Hutcheon and Kirsch (2004), Van Den Bussche and Hofer (2004) and Eick et al. (2005). See Miller-Butterworth et al. (2007) for detailed phylogenetic analysis. Three species belonging to one genus, *Miniopterus* Bonaparte, 1837, are found in South Asia.

**Genus *Miniopterus* Bonaparte, 1837**

**Long-fingered Bats**

Recent molecular studies split *Miniopterus schreibersii* (Kuhl, 1819) into three species of which only *M. fuliginosus* (Hodgson, 1835) occurs in Asia (Tian et al. 2004; Appleton et al. 2004).

**357. *Miniopterus fuliginosus* (Hodgson, 1835)**

1835. *Vespertilio fuliginosa* Hodgson, J. Asiat. Soc. Bengal, 4:700

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Eastern Long-fingered Bat (Eastern Bent-winged Bat)

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Type locality:	Nepal
Synonyms:	<i>Vespertilio fuliginosa</i> Hodgson, 1835
Subspecies:	None
Distribution:	<i>Miniopterus fuliginosus</i> (Hodgson, 1835) Afghanistan—Bamian, Helmand, Kandahar, Nangarhar, Nimruz, and Zabol Provinces India—Andhra Pradesh, Maharashtra, Meghalaya, Tamil Nadu, Uttarakhand, and West Bengal Nepal—Central and Western Nepal Sri Lanka—Central, North Western, Sabaragamuwa, Uva, and Western Provinces
Comments:	Earlier treated as subspecies of <i>Miniopterus schreibersii</i> (Kuhl, 1819), now raised to specific level following Tian et al. (2004) and Appleton et al. (2004). May possibly also occur in Bhutan

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**358. *Miniopterus pusillus* Dobson, 1876**

1876. *Miniopterus pusillus* Dobson, Mongr. Asiat. Chiroptera, p. 162

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Small Long-fingered Bat (Nicobar Long-fingered Bat)

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Type locality:	Nicobar Island, India
Synonyms:	<i>Miniopterus australis pusillus</i> Dobson, 1876
Subspecies:	None

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**Small Long-fingered Bat (Nicobar Long-fingered Bat)**

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- Distribution: *Miniopterus pusillus* Dobson, 1876  
India—Karnataka, Nicobar Islands, and Tamil Nadu  
Nepal—Western Nepal
- Comments: Earlier treated as subspecies of *Miniopterus australis* Tomes, 1858 (Ellerman and Morrison-Scott 1951), now considered a distinct species (Hill 1983; Corbet and Hill 1992; Koopman 1993; Bates and Harrison 1997; Hendrichsen et al. 2001b; Simmons 2005)
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**359. *Miniopterus magnater* Sanborn, 1931**1931. *Miniopterus magnater* Sanborn, Field Mus. Nat. Hist. Publ., Zool. Ser., 18:26

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**Western Long-fingered Bat (Large Bent-winged Bat)**

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- Type locality: Marienberg, E. Sepik, Papua New Guinea
- Synonyms: *Miniopterus schreibersii magnater* Sanborn, 1931
- Subspecies: *Miniopterus magnater macrodens* Maeda, 1982
- Distribution: *Miniopterus magnater macrodens* Maeda, 1982  
India—Arunachal Pradesh
- Comments: Formerly included as subspecies of *Miniopterus schreibersii* (Kuhl, 1819), now considered a distinct species (Corbet and Hill 1992; Koopman 1993; Appleton et al. 2004; Tian et al. 2004; Simmons 2005)
- 

## Order Pholidota Weber, 1904

The order Pholidota Weber, 1904 is monogeneric and is represented by seven species in a single family Manidae Gray, 1821 distributed from Africa to Asia (Schlitter 2005).

### Family Manidae Gray, 1821

Two species belonging to one genus, *Manis* Linnaeus, 1758, are found in South Asia.

### Genus *Manis* Linnaeus, 1758

#### Scaly Ant-eaters

Pocock (1924) reviewed the genus *Manis* Linnaeus, 1758. Presently, five subgenera are recognized of which only subgenus *Manis* Linnaeus, 1758, represented by two species, occurs in South Asia.

**360. *Manis crassicaudata* Gray, 1827**1827. *Manis crassicaudatus* Gray, In Griffith et al., Anim. Kingdom, 5:282

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**Indian Pangolin (Thick-tailed Pangolin)**

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- Type locality: India
- Synonyms: *Manis laticuada* Illiger, 1815 (*nomen nudum*)  
*Manis crassicaudatus* Gray, 1827  
*Pholidotus indicus* Gray, 1865
- Subspecies: None
- Distribution: *Manis crassicaudata* Gray, 1827  
 Bangladesh—Khulna  
 Bhutan—Eastern Bhutan  
 India—Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Goa, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Western Nepal  
 Pakistan—Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh  
 Sri Lanka—No exact location. Although it is known to be distributed throughout the lowlands of Sri Lanka
- Comments: Belongs to subgenus *Manis* Linnaeus, 1758. Formerly erroneously called “*pentadactyla*” (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992)
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**361. *Manis pentadactyla* Linnaeus, 1758**1758. *Manis pentadactyla* Linnaeus, Syst. Nat., 10th edition, 1:36

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**Chinese Pangolin**

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- Type locality: Taiwan
- Synonyms: *Manis auritus* Hodgson, 1836  
*Pholidotus assamensis* Fitzinger, 1872  
*Phatages bengalensis* Fitzinger, 1872
- Subspecies: *Manis pentadactyla auritus* Hodgson, 1836
- Distribution: *Manis pentadactyla auritus* Hodgson, 1836  
 Bangladesh—No exact location  
 Bhutan—Central and West Bhutan  
 India—Arunachal Pradesh, Assam, Meghalaya, Nagaland, and Sikkim  
 Nepal—Central and Eastern Nepal
- Comments: Belongs to subgenus *Manis* Linnaeus, 1758
-

## Order Carnivora Bowdich, 1821

The order Carnivora Bowdich, 1821 is represented by 286 recognized living carnivore species classified in 11 families and 125 genera (Nowak 1999; Wozencraft 1993; Wilson and Mittermeier 2009; Agnarsson et al. 2010; Eizirik et al. 2010). The order Carnivora is divided into two suborders namely, Caniformia Kretzoi, 1938 and Feliformia Kretzoi, 1945 that were considered earlier as superfamilies (Simpson 1945; Ellerman and Morrison-Scott 1951; Eizirik et al. 2010). In South Asia, the suborder Caniformia includes families Canidae, Mustelidae, Ailuridae, and Ursidae, and the suborder Feliformia includes families Felidae, Prionodontidae, Hyaenidae, Herpestidae, and Viverridae (McKenna and Bell 1997; Flower 1869; Flynn and Wesley-Hunt 2005; Wozencraft 2005; Eizirik et al. 2010).

### Suborder Caniformia Kretzoi, 1938

This suborder is represented by four families in South Asia (Wozencraft 2005; Eizirik et al. 2010).

### Family Canidae Fischer, 1817

The family Canidae includes 36 species in 16 genera Nowak (1999). Includes seven species in three genera in South Asia. The taxonomy of the family Canidae Fischer, 1817 has been studied by Mivart (1890), Fox (1975), Clutton-Brock et al. (1976), Van Gelder (1978), and Bardeleben et al. (2005).

### Genus *Canis* Linnaeus, 1758

#### Wolves and Jackals

Two species represent this genus in South Asia. Recent molecular works by Aggarwal et al. (2003), Sharma et al. (2004), and Aggarwal et al. (2007) prove the presence of genetically distinct species of world in India, which is accepted here. Sharma et al. (2004) in their study proposed that the Himalayan wolf *Canis lupus chanco* and the Great Indian Wolf *Canis lupus pallipes* might represent two distinct species. The Indian populations of the purported Tibetan wolf were found to be genetically distinct from the Tibetan wolf *chanco*. Additionally, the Indian population of Indian Great Wolf was found to be genetically distinct from the *pallipes* from Afghanistan (Tsuda et al. 1997), Middle East, and Central Asia (Aggarwal et al. 2007). Hence two species namely *Canis himalayensis* and *Canis indica* are included here following Aggarwal et al. (2003) and Aggarwal et al. (2007).

#### 362. *Canis aureus* Linnaeus, 1758

1758. *Canis aureus* Linnaeus, Syst. Nat., 10th ed. 1:40

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Golden Jackal (Asiatic Jackal, Common Jackal)

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Type locality: "Oriente", restricted by Thomas (1911) to "Benna Mountains, Laristan, S. Persia"

Synonyms: *Canis aureus indicus* Hodgson, 1833

*Canis indicus kola* Wroughton, 1916

*Canis naria* Wroughton, 1916

*Canis lanka* Wroughton, 1916

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**Golden Jackal (Asiatic Jackal, Common Jackal)**

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- Subspecies: *Canis aureus indicus* Hodgson, 1833  
*Canis aureus naria* Wroughton, 1916
- Distribution: *Canis aureus indicus* Hodgson, 1833  
 Afghanistan—Badghis, Balkh, Farah, Faryab, Helmand, Herat, Jowzjan, Kandahar, Konduz, and Nimruz Provinces  
 Bangladesh—Patukhali  
 Bhutan—No exact location  
 India—Assam, Arunachal Pradesh, Bihar, Gujarat, Jammu and Kashmir, Jharkhand, Haryana, Himachal Pradesh, Madhya Pradesh, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Eastern, Mid-Western, Far-Western, and Western Nepal  
 Pakistan—Balochistan and Khyber Pakhtunkhwa  
*Canis aureus naria* Wroughton, 1916  
 Endemic to South Asia  
 India—Andhra Pradesh, Chhattisgarh, Karnataka, Kerala, Maharashtra, Orissa, and Tamil Nadu  
 Sri Lanka—Eastern, North Central, Northern, and Western Provinces
- Comments: None
- 

**363. *Canis lupus* Linnaeus, 1758**1758. *Canis lupus* Linnaeus, Syst. Nat., 10th ed. 1:39

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**Grey Wolf (Common Wolf)**

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- Type locality: Sweden
- Synonyms: *Canis pallipes* Sykes, 1831  
*Canis niger* Sclater, 1874
- Subspecies: *Canis lupus pallipes* Sykes, 1831  
*Canis lupus chanco* Gray, 1863
- Distribution: *Canis lupus pallipes* Sykes, 1831  
 Afghanistan—Badghis, Balkh, Farah, Faryab, Helmand, Herat, Jowzjan, Kabul, Kandahar, Konduz, and Nimruz Provinces  
 Bangladesh—Chittagong (extinct)  
 Bhutan—No exact location  
 India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jammu and Kashmir, Jharkhand, Karnataka (parts of), Haryana, Himachal Pradesh, Madhya Pradesh, Maharashtra (parts of), Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu (parts of), Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Balochistan  
*Canis lupus chanco* Gray, 1863  
 Afghanistan—Badakhshan and Nuristan Provinces  
 India—Himachal Pradesh (parts of), Jammu and Kashmir (including Disputed Kashmir) and Uttarakhand (Bhattacharya and Satyakumar 2010)  
 Pakistan—Khyber Pakhtunkhwa
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**Grey Wolf (Common Wolf)**

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Comments: A recent molecular study by Aggarwal et al. (2007) indicates that the Indian populations of this species is intermediate between *Canis latrans* Say, 1823 and *Canis lupus* Linnaeus, 1758 or might have diverged from the original stock and due to isolation evolved differently. Aggarwal et al. (2007) proposed the nomen *Canis himalayanus* and *Canis indica* for *Canis lupus chanco* Gray, 1863 and *Canis lupus pallipes* Sykes, 1831, respectively

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**Genus *Cuon* Hodgson, 1838****Asiatic Wild Dog**

Monotypic genus. The taxonomic status of this genus has been worked out by Pocock (1936a) and Cohen (1978).

**364. *Cuon alpinus* (Pallas, 1811)**

1811. *Canis alpinus* Pallas, Zoogr. Ross. Asiat., 1:34

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**Dhole (Asiatic Wild Dog)**

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Type locality: “Udskoi Ostrog”, reported in Honacki et al. (1982) as “USSR., Amurskaya Obl., Udskii-Ostrog”

Synonyms: *Canis alpinus* Pallas, 1811  
*Canis dukhunensis* Sykes, 1831  
*Canis primaevus* Hodgson, 1833  
*Cuon grayiformis* Hodgson, 1863

Subspecies: *Cuon javanicus laniger* Pocock, 1936  
*Cuon alpinus dukhunensis* (Sykes, 1831)  
*Canis alpinus primaevus* Hodgson, 1833  
*Cuon alpinus laniger* Pocock, 1936  
*Cuon alpinus adustus* Pocock, 1941

Distribution: *Cuon alpinus dukhunensis* (Sykes, 1831)  
 Endemic to India  
 Andhra Pradesh, Bihar, Chhattisgarh, Gujarat (parts of), Goa, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan (parts of), and Tamil Nadu  
*Cuon alpinus primaevus* Hodgson, 1833  
 Bhutan—Central, East, and West Bhutan  
 India—Sikkim and Uttarakhand  
 Nepal—Central, Far-Western, Mid-Western, and Western Nepal  
*Cuon alpinus laniger* Pocock, 1936  
 India—Jammu and Kashmir (in Kashmir and Ladakh).  
*Cuon alpinus adustus* Pocock, 1941  
 Bangladesh—Chittagong Hill Tracts and Sylhet districts  
 India—Arunachal Pradesh (parts of), Assam (parts of), Manipur, Meghalaya (parts of), Mizoram, Nagaland, and Tripura

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**Dhole (Asiatic Wild Dog)**

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Comments: Eleven subspecies of this taxon are known in Asia (Pocock 1936a; Cohen 1978; Durbin et al. 2004). Wozencraft (2005) recognized only two taxa, *adustus* Pocock, 1941 and *laniger* Pocock, 1936 as valid subspecies. Iyengar et al. (2005) proposed two distinct phylogeographical groupings, one extending from South, Central, and North India (south of the Ganges) into Myanmar, and the other extending from India north of the Ganges into northeastern India, Myanmar, Thailand, and the Malaysian Peninsula

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**Genus *Vulpes* Frisch, 1775****Foxes**

Six species represent this genus in South Asia.

**365. *Vulpes vulpes* (Linnaeus, 1758)**

1811. *Canis vulpes* Linnaeus, Syst. Nat., 10th ed., 1:40

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**Red Fox (Silver Fox)**

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Type locality: “Europa, Asia, Africa, antrafodiens”, restricted to Sweden (Uppsala) by Thomas (1911)

Synonyms: *Canis vulpes* Linnaeus, 1758  
*Canis vulpes montana* Pearson, 1836  
*Canis himalaicus* Ogilby, 1837  
*Vulpes nepalensis* Gray, 1837  
*Vulpes alopex* Blanford, 1888  
*Vulpes ladacensis* Matschie, 1907  
*Vulpes pusillus* Blyth, 1854  
*Vulpes leucopus* Blyth, 1854  
*Vulpes griffithi* Blyth, 1854  
*Vulpes flavescens* Hutton, 1845

Subspecies: *Vulpes vulpes griffithi* Blyth, 1854  
*Vulpes vulpes montana* Pearson, 1836  
*Vulpes vulpes pusilla* Blyth, 1854

Distribution: *Vulpes vulpes griffithi* Blyth, 1854  
 Afghanistan—Badakhshan, Balkh, Faryab, Kabul, Kandahar, and Jowzjan Provinces  
 Pakistan—Khyber Pakhtunkhwa and Punjab  
*Vulpes vulpes montana* Pearson, 1836  
 Bhutan—West Bhutan  
 India—Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), Punjab, Sikkim, and Uttarakhand  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
*Vulpes vulpes pusilla* Blyth, 1854  
 India—Gujarat (in Kutch), Punjab, and Rajasthan  
 Pakistan—Balochistan and Sindh

Comments: Reviewed by Larivière and Pasitschniak-Arts (1996)

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**366. *Vulpes corsac* (Linnaeus, 1768)**1768. *Canis corsac* Linnaeus, Syst. Nat., 12th ed., 3:appendix 223

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**Corsac Fox**

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- Type locality: “in campis magi deserti ab Jaco fluvio verus Irtin”, listed by Honacki et al. (1982) as “USSR, n. Kazakhstan, Steppes between Ural and Irtysh rivers, near Petropavlovsk”
- Synonyms: *Canis corsac* Linnaeus, 1768
- Subspecies: None
- Distribution: *Vulpes corsac* (Linnaeus, 1768)  
Afghanistan—Badghis, Balkh, Faryab, Konduz, and Jowzjan Provinces
- Comments: See Clark et al. (2009)
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**367. *Vulpes bengalensis* (Shaw, 1800)**1800. *Canis bengalensis* Shaw, Gen. Zool. Syst. Nat. Hist., 1(2):330

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**Bengal Fox (Indian Fox)**

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- Type locality: Bengal
- Synonyms: *Canis bengalensis* Shaw, 1800  
*Canis kokree* Sykes, 1831  
*Canis (Vulpes) indicus* Hodgson, 1833 (not *Canis aureus indicus* Hodgson)  
*Canis (Vulpes) rufescens* Gray, 1834  
*Canis chrysurus* Gray, 1837  
*Vulpes hodgsonii* Gray, 1837  
*Vulpes xanthura* Gray, 1838
- Subspecies: None
- Distribution: Endemic to South Asia  
*Vulpes bengalensis* (Shaw, 1800)  
Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
Bhutan—Central, East, and West Bhutan (in the terai along the border of India)  
India—Throughout, except middle and higher Himalayas  
Nepal—Central and Mid-Western Nepal  
Pakistan—Punjab and Sindh
- Comments: This taxon is monotypic (Gompper and Vanak 2006)
- 

**368. *Vulpes rueppellii* (Schinz, 1825)**1825. *Canis rueppellii* Schinz, Cuviers Thierreich, 4:508

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**Rueppell's Fox (Rueppell's Sand Fox)**

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- Type locality: “Vatherland, Dongola, Sudan”
- Synonyms: *Canis rueppelli* Schinz, 1825  
*Vulpes (Megalotis) famelicus zarudnyi* Birula, 1912
- Subspecies: *Vulpes rueppellii zarudnyi* Birula, 1912
- Distribution: *Vulpes rueppellii zarudnyi* Birula, 1912  
Afghanistan—Farah Province  
Pakistan—Balochistan
- Comments: Reviewed by Larivière and Seddon (2001)
-

**369. *Vulpes ferrilata* Hodgson, 1842**1842. *Vulpes ferrilatus* Hodgson, J. Asiat. Soc. Bengal, 11:278

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**Tibetan Fox (Sand Fox)**

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Type locality:	“Brought from Lassa” (Tibet, China)
Synonyms:	None
Subspecies:	None
Distribution:	<i>Vulpes ferrilata</i> Hodgson, 1842 India—Jammu and Kashmir (in Ladakh), Sikkim, and West Bengal Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal
Comments:	This taxon may probably occur in Bhutan. Reviewed by Clark et al. (2008)

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**370. *Vulpes cana* Blanford, 1877**1877. *Vulpes canus* Blanford, J. Asiat. Soc. Bengal, 2(46):321

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**Blanford’s Fox (Afghan Fox)**

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Type locality:	Gwadar, Balochistan, Pakistan
Synonyms:	<i>Vulpes canus</i> Blanford, 1877
Subspecies:	None
Distribution:	<i>Vulpes cana</i> Blanford, 1877 Afghanistan—Kandahar Province Pakistan—Balochistan
Comments:	Reviewed by Geffen (1994)

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**Family Mustelidae Fischer de Waldheim, 1817**

The families Mustelidae and Ailuridea are now included under a single clade Mustelida (Eizirik et al. 2010; McKenna and Bell 1997). Simpson (1945) and Ellerman and Morrison-Scott (1951) recognized four subfamilies under family Mustelidae Fischer de Waldheim (1817), while Corbet and Hill (1992) recognized three subfamilies. Only two subfamilies namely Lutrinae Bonaparte, 1838 and Mustelinae Fischer de Waldheim, 1817 were recognized by Wozencraft (2005). Sato et al. (2004), Fulton and Strobeck (2006), Koepfli et al. (2008), and Yu et al. (2011) recognize upto eight subfamilies of which forms belonging to seven occur in South Asia. For detailed review of this family, see Pocock (1921a, b), Bryant et al. (1993), Masuda and Yoshida (1994b), Abramov and Baryshnikov (1995), Dragoo and Honeycutt (1997), Baryshnikov and Abramov (1997, 1998), Bininda-Emonds et al. (1999), Kurose et al. (2000), and Yu et al. (2011).

**Subfamily Lutrinae Bonaparte, 1838**

Reviewed by Pohle (1920), Pocock (1940a), Van Zyll de Jong (1972, 1987, 1991), Muizon (1982), Koepfli and Wayne (1998), Harris (1968), Sokolov (1973), and Bininda-Emonds et al. (1999).

## Genus *Aonyx* Lesson, 1827

### Small-clawed Otter

Pocock (1941), Simpson (1945), and Larivière (2003) used the name *Amblyonyx* Rafinesque, 1832 as a genus to represent this species. Sometimes it was included under the genus *Micronyx* Allen, 1938 and also *Lutra* Brisson, 1762 (Chasen 1940). However, Ellerman and Morrison-Scott (1951) following Osgood (1932) included this species under *Aonyx* Lesson, 1827 and treated *Amblyonyx* Rafinesque, 1832 as its subgenus. This view was followed by Coetzee (1977), Davis (1978), Koepfli and Wayne (1998), and Wozencraft (2005). However, Harris (1968), Medway (1977), and van Zyll de Jong (1972, 1987) considered both *Amblyonyx* Rafinesque, 1832 and *Aonyx* Lesson, 1827 distinct.

#### 371. *Aonyx cinerea* (Illiger, 1815)

1815. *Lutra cinerea* Illiger, Abh. Phys. Klasse K. Preuss. Akad. Wiss., 1804–1811:99 (1815)

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#### Asian Small-clawed Otter (Oriental Small-clawed Otter)

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Type locality:	Batavia, Java, Indonesia
Synonyms:	<i>Lutra cinerea</i> Illiger, 1815 <i>Amblyonyx concolor</i> Rafinesque, 1832 <i>Lutra indigitatus</i> Hodgson, 1839 <i>Aonyx sikimensis</i> Horsfield, 1855 <i>Amblyonyx cinerea nirnai</i> Pocock, 1940
Subspecies:	<i>Aonyx cinerea concolor</i> (Rafinesque, 1832) <i>Aonyx cinerea nirnai</i> (Pocock, 1940)
Distribution:	<i>Aonyx cinerea concolor</i> (Rafinesque, 1832) Bangladesh—Chittagong Bhutan—Central, East, and West Bhutan India—Assam, Himachal Pradesh, Sikkim, and Uttarakhand Nepal—Central, Eastern, and Mid-western Nepal <i>Aonyx cinerea nirnai</i> (Pocock, 1940) Endemic to India—Karnataka, Kerala, and Tamil Nadu (in the Western Ghats)
Comments:	None

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**Genus *Lutra* Brisson, 1762**

**Common Otter**

**372. *Lutra lutra* (Linnaeus, 1758)**

1758. *Mustela lutra* Linnaeus, Syst. Nat. 10th ed., 1:45

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European Otter (Common Otter)

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- Type locality: “Uppsala”, Sweden (Thomas 1911)
- Synonyms: *Mustela lutra* Linnaeus, 1758  
*Lustra vulgaris* Erxleben, 1777 (Renaming of *lutra*)  
*Mustela Lutra piscatoria* Kerr, 1792 (Renaming of *lutra*)  
*Lutra nair* F. Cuvier, 1823  
*Lutra indica* Gray, 1837  
*Lutra monticolus* Hodgson, 1839  
*Lutra aurobrunneus* Hodgson, 1839  
*Lutra kutab* Schinz, 1844  
*Barangia* (?) *nepalensis* Gray, 1865  
*Lutra lutra ceylonica* Pohle, 1920
- Subspecies: *Lutra lutra nair* F. Cuvier, 1823  
*Lutra lutra aurobrunneus* Hodgson, 1839  
*Lutra lutra monticola* Hodgson, 1839  
*Lutra lutra kutab* Schinz, 1844
- Distribution: *Lutra lutra nair* F. Cuvier, 1823  
 Endemic to South Asia  
     India—Andhra Pradesh, Maharashtra, Kerala, Karnataka and Tamil Nadu  
     Sri Lanka—Central, Eastern, Northern, North Central, North Western,  
     Sabaragamuwa, Southern, Uva, and Western Provinces  
*Lutra lutra aurobrunneus* Hodgson, 1839  
     India—Himachal Pradesh (parts of) and Uttarakhand  
     Nepal—Far-Western Nepal  
*Lutra lutra monticola* Hodgson, 1839  
     Bangladesh—Mymensingh and Sylhet  
     Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan  
     India—Assam, Himachal Pradesh, Sikkim, and Uttarakhand  
     Nepal—Eastern, Far-Western, and Mid-Western Nepal  
*Lutra lutra kutab* Schinz, 1844  
     Afghanistan—Badakhshan, Baghlan, Farah, Helmand, Herat, Kabul,  
     Nuristan, and Takhar Provinces  
     India—Himachal Pradesh and Jammu and Kashmir (including Disputed  
     Kashmir)  
     Pakistan—Khyber Pakhtunkhwa
- Comments: None
-

**Genus *Lutrogale* Gray, 1865**

**Smooth-coated Otter**

Monotypic genus. Included under the genus *Lutra* Brisson, 1762 (Pohle 1920; Ellerman and Morrison-Scott 1951). However, Pocock (1941), Van Zyll de Jong (1972, 1987), and Davis (1978) considered it as a distinct genus.

**373. *Lutrogale perspicillata* (I. Geoffroy Saint-Hilaire, 1826)**

1826. *Lutra perspicillata* I. Geoffroy Saint-Hilaire, *In* Bory de Saint-Vincent (ed.) *Dict. Class. Hist. Nat. Paris*, 9:519

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Smooth-coated Otter (Indian Smooth-coated Otter)

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- Type locality: “Sumatra”, Indonesia
- Synonyms: *Lutra perspicillata* I. Geoffroy Saint-Hilaire, 1826  
*Lutra tarayensis* Hodgson, 1839  
*Lutra macrodus* Gray, 1865  
*Lutra ellioti* Anderson, 1879  
*Lutra perspicillata sindica* Pocock, 1940
- Subspecies: *Lutrogale perspicillata perspicillata* (I. Geoffroy Saint-Hilaire, 1826)  
*Lutrogale perspicillata sindica* Pocock, 1940
- Distribution: *Lutrogale perspicillata perspicillata* (I. Geoffroy Saint-Hilaire, 1826)  
 Bangladesh—Barisal, Chittagong, Khulna, Mymensingh, Rajshahi, and Sylhet  
 Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan (in the terai region)  
 India—Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat (parts of), Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Rajasthan (parts of), Tamil Nadu, Tripura, Uttar Pradesh, and West Bengal  
 Nepal—Eastern, Far-Western, Mid-Western, and Western Nepal  
*Lutrogale perspicillata sindica* Pocock, 1940  
 Endemic to South Asia  
 India—Gujarat (parts of) and Rajasthan (parts of)  
 Pakistan—Sindh
- Comments: None. Recently reported from additional localities in Sindh, Pakistan (Rais et al. 2009; Ali et al. 2010)
-

**Subfamily Martinae Pocock, 1921**

**Genus *Martes* Pinel, 1792**

**Martens**

Represented by three species in South Asia (Wozencraft 2005).

**374. *Martes foina* (Erxleben, 1777)**

1777. *Mustela foina* Erxleben, Syst. Regni. Anim., 1:458

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Stone Marten (Beech Marten)

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- Type locality: Germany (Miller, 1912)
- Synonyms: *Mustela foina* Erxleben, 1777  
*Mustela* (?) *toufoeus* Hodgson, 1842  
*Martes toufoeus* Wroughton, 1919 (not of Hodgson, 1842)
- Subspecies: *Martes foina toufoeus* (Hodgson, 1842)  
*Martes foina intermedia* (Severtzov, 1873)
- Distribution: *Martes foina toufoeus* (Hodgson, 1842)  
 India—Jammu and Kashmir (in Ladakh region)  
*Martes foina intermedia* (Severtzov, 1873)  
 Afghanistan—Badakhshan, Nuristan, and Takhar Provinces  
 India—Jammu and Kashmir (in Disputed Kashmir)  
 Nepal—Mid-Western Nepal  
 Pakistan—Balochistan and Khyber Pakhtunkhwa
- Comments: None
- 

**375. *Martes flavigula* (Boddaert, 1785)**

1785. *Mustela flavigula* Boddaert, Elench. Anim., 1:88

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Yellow-throated Marten

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- Type locality: Unknown, but traditionally fixed by Pocock (1941) as Nepal
- Synonyms: *Mustela flavigula* Boddaert, 1785  
*Mustela melina* Kerr, 1792  
*Viverra quadricolor* Shaw, 1800  
*Mustela leucotis* Bechstein, 1800  
*Galidictis chrysogaster* H. Smith, 1842  
*Mustela flavigula typica* Bonhote, 1901
- Subspecies: *Martes flavigula flavigula* (Boddaert, 1785)
- Distribution: *Martes flavigula flavigula* (Boddaert, 1785)  
 Afghanistan—Nuristan Province  
 Bhutan—Central Bhutan  
 India—Assam, Jammu and Kashmir (in Disputed Kashmir), Sikkim,  
 Uttarakhand, and West Bengal  
 Pakistan—Khyber Pakhtunkhwa  
 Nepal—Central and Mid-Western Nepal
- Comments: Various placed under subgenus *Charronia* Gray, 1865 (Ellerman and Morrison-Scott 1951; Stone and Cook 2002) and *Lamprogale* Ognev, 1928 (Pocock 1936b; Baryshnikov and Abramov 1997, 1998)
-

**376. *Martes gwatkinsii* Horsfield, 1851**1851. *Martes gwatkinsii* Horsfield, Cat. Mamm. Mus. E. India Co., pp. 90

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**Nilgiri Marten**

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Type locality: Madras, India

Synonyms: None

Subspecies: None

Distribution: Endemic to India

*Martes gwatkinsii* Horsfield, 1851

Karnataka, Kerala, and Tamil Nadu (in the Western Ghats)

Comments: Some authorities included this taxon under *Martes flavigula* (Boddaert, 1785) (Corbet 1978; Honacki et al. 1982; Corbet and Hill 1992), while others (Bonhote 1901; Pocock 1936a, 1941; Ellerman and Morrison-Scott 1951; Anderson 1970; Rozhnov 1995) considered it distinct based on bacular studies (Pocock 1941; Baryshnikov et al. 2003)

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**Subfamily Melinae Pocock, 1921****Genus *Arctonyx* F. Cuvier, 1825****Hog-Badger**

Monotypic genus. Revised by Pocock (1940b).

**377. *Arctonyx collaris* F. Cuvier, 1825**1825. *Arctonyx collaris* F. Cuvier, In E. Geoffroy Saint-Hilaire and F. G

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**Hog Badger**

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Type locality: Bhutan Duars, India

Synonyms: *Arctonyx taxoides* Blyth, 1853*Arctonyx isonyx* Horsfield, 1856*Arctonyx collaris taraiyensis* Gray, 1863Subspecies: *Arctonyx collaris collaris* F. Cuvier, 1825*Arctonyx collaris consul* Pocock, 1940Distribution: *Arctonyx collaris collaris* F. Cuvier, 1825

Bhutan—Central, East, and West Bhutan (in the terai region).

India—Assam, Arunachal Pradesh, Sikkim, and West Bengal (in the terai region)

Nepal—Mid-Western Nepal

*Arctonyx collaris consul* Pocock, 1940

Bangladesh—Chittagong

India—Meghalaya, Mizoram, and Nagaland

Comments: None

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## Genus *Meles* Brisson, 1762

### Badgers

Earlier thought to be monotypic (Ellerman and Morrison-Scott 1951; Heptner et al. 1967). The taxon *Meles* is presently divided into three distinct species based on cranial and genetic studies (Abramov 2001, 2002, 2003; Abramov and Puzachenko 2005; Ginsburg and Morales 2000). The taxon *Meles leucurus* (Hodgson, 1847) may probably occur in parts of Arunachal Pradesh and parts of disputed Kashmir in South Asia.

#### **378. *Meles meles* (Linnaeus, 1758)**

1758. *Ursus meles* Linnaeus, Syst. Nat. 10th ed., 1:48

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#### European Badger

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Type locality:	Uppsala, Sweden (Thomas 1911)
Synonyms:	<i>Ursus meles</i> Linnaeus, 1758 <i>Taxus vulgaris</i> Tiedemann, 1808 (Renaming of <i>Ursus meles</i> ) <i>Meles europaeus</i> Desmarest, 1816 (Renaming of <i>meles</i> ) <i>Meles communis</i> Desmarest, 1816 (Renaming of <i>meles</i> )
Subspecies:	None
Distribution:	<i>Meles meles</i> (Linnaeus, 1758) Afghanistan—No locality record
Comments:	May possibly occur in Afghanistan. See Bobrinsky et al. (1965), Kullmann (1965), Niethammer (1967), Hassinger (1973), Naumann (1973), and Habibi (2003) for possible distribution records

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## Subfamily Mellivorinae Gray, 1865

### Genus *Mellivora* Storr, 1780

#### Honey Badger

Belongs to subfamily Mellivorinae (Ellerman and Morrison-Scott 1951; McKenna and Bell 1997; Koepfli et al. 2008). A monotypic genus.

#### **379. *Mellivora capensis* (Schreber, 1776)**

1776. *Viverra capensis* Schreber, Die Säugethiere, 3(18):125pl (1776), text, 3(26):450, 588 (1777)

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#### Honey Badger

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Type locality:	Cape of Good Hope, South Africa
Synonyms:	<i>Viverra capensis</i> Schreber, 1776 <i>Ursus indicus</i> Kerr, 1792 <i>Ratelus mellivorus</i> Bennett, 1830 <i>Ratelus indicus</i> Burton, 1835 <i>Mellivora ratel</i> Horsfield, 1851 <i>Mellivora ratelus</i> Fraser, 1862 <i>Ursusitaxus inauritus</i> Hodgson, 1836

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(continued)

(continued)

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**Honey Badger**

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- Subspecies: *Mellivora capensis indicus* (Kerr, 1792)  
*Mellivora capensis inauritus* (Hodgson, 1836)
- Distribution: *Mellivora capensis indicus* (Kerr, 1792)  
 India—Andhra Pradesh (parts of), Karnataka (parts of), Gujarat, Madhya Pradesh, Maharashtra, Orissa (parts of), and West Bengal (parts of)  
 Pakistan—Balochistan and Sindh  
*Mellivora capensis inauritus* (Hodgson, 1836)  
 Afghanistan—No locality known  
 India—Bihar, Jammu and Kashmir, Jharkhand, Haryana, Himachal Pradesh, Punjab, Uttarakhand, and Uttar Pradesh  
 Nepal—Central and Eastern Nepal (historically).
- Comments: See Habibi (2003) for note on possible distribution of this taxon in Afghanistan
- 

**Subfamily Helictidinae Gray, 1865****Genus *Melogale* I. Geoffroy Saint-Hilaire, 1831****Ferret-Badger****380. *Melogale moschata* (Gray, 1831)**1831. *Helictis moschata* Gray, Proc. Zool. Soc. London, pp. 94

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Small-toothed Ferret-badger (Chinese Ferret-Badger)

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- Type locality: China (restricted to Canton, Kwantung Province, Southern China by Allen 1929)
- Synonyms: *Helictis moschata* Gray, 1831  
*Helictis millsii* Thomas, 1922
- Subspecies: *Melogale moschata millsii* (Thomas, 1922)
- Distribution: *Melogale moschata millsii* (Thomas, 1922)  
 India—Arunachal Pradesh, Assam, Manipur, Nagaland, and Sikkim
- Comments: None. May probably occur in Bangladesh (Storz and Wozencraft 1999)
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**381. *Melogale personata* I. Geoffroy Saint-Hilaire, 1831**1831. *Melogale personata* I. Geoffroy Saint-Hilaire, *In* Belanger, Voy. Zool. Indes Orient., 3:137, pl. 5

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Large-toothed Ferret-badger (Burmese Ferret-Badger)

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- Type locality: Near Rangoon, Burma
- Synonyms: *Gulo nipalensis* Hodgson, 1836  
*Helictis orientalis* Blanford, 1888 (not of Horsfield, 1821)
- Subspecies: *Melogale personata nipalensis* (Hodgson, 1836)
- Distribution: *Melogale personata nipalensis* (Hodgson, 1836)  
 Bhutan—No exact locality known  
 India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Nagaland, Sikkim, and West Bengal (in the Himalayas)  
 Nepal—Central and Eastern Nepal
- Comments: None. No recent sighting records in Nepal, records included here are historic
-

### Subfamily Mustelinae Fischer, 1817

Represented by 15 species in 7 genera in South Asia (Wozencraft 2005).

#### Genus *Mustela* Linnaeus, 1758

##### Ermines and Weasels

Six species are recognized under this genus. Additionally, the taxon *Mustela evermannii* Lesson, 1827 may probably occur in disputed Kashmir areas of Jammu and Kashmir in India. Nine subgenera are recognized (Abramov 1999). Reviewed by Kurose et al. (2000) and Masuda and Yoshida (1994a).

#### 382. *Mustela erminea* Linnaeus, 1758

1758. *Mustela erminea* Linnaeus, Syst. Nat. 10th ed., 1:46

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##### Ermine (Short-tailed Weasel)

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Type locality:	Sweden
Synonyms:	<i>Mustela whiteheadi</i> Wroughton, 1908
Subspecies:	<i>Mustela erminea ferghanae</i> Thomas, 1895
Distribution:	<i>Mustela erminea ferghanae</i> Thomas, 1895 Afghanistan—Badakhshan Province India—Jammu and Kashmir (in Disputed Kashmir and Ladakh) Nepal—Western Nepal Pakistan—Khyber Pakhtunkhwa
Comments:	Belongs to subgenus <i>Mustela</i> Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Youngman 1982; Abramov 1999)

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#### 383. *Mustela nivalis* Linnaeus, 1758

1758. *Mustela nivalis* Linnaeus, Syst. Nat. 10th ed., 1:69

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##### Least Weasel

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Type locality:	“Vesterbotten”, Sweden
Synonyms:	<i>Mustela stoliczkana</i> Blanford, 1877
Subspecies:	<i>Mustela nivalis stoliczkana</i> Blanford, 1877
Distribution:	Extinct in South Asia <i>Mustela nivalis stoliczkana</i> Blanford, 1877 Afghanistan—Badakhshan, Parvan, Nuristan, and Takhar Provinces
Comments:	Ellerman and Morrison-Scott (1951) and Habibi (1977) report the presence of this species in Afghanistan, which has not been sighted after 1966 (Habibi 2003). Wozencraft (2005) too does not include Afghanistan in its range

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**384. *Mustela sibirica* Pallas, 1773**1773. *Mustela sibirica* Pallas, Reise Prov. Russ. Reichs., 2:701

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**Siberian Weasel**

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- Type locality: “Vorposten Tigerazkoi, near Ust-Kamenogorsk, Western Altai” (Pallas, 1773)
- Synonyms: *Mustela (Putorius) subhemachalanus* Hodgson, 1837  
*Mustela humeralis* Blyth, 1842  
*Mustela canigula* Hodgson, 1842  
*Mustela horsfieldii* Gray, 1843  
*Mustela hodgsoni* Gray, 1843
- Subspecies: *Mustela sibirica subhemachalana* Hodgson, 1837  
*Mustela sibirica hodgsoni* Gray, 1843  
*Mustela sibirica canigula* Hodgson, 1842
- Distribution: *Mustela sibirica subhemachalana* Hodgson, 1837  
 Bhutan—Central and West Bhutan (restricted to the upper reaches of the Himalayas)  
 India—Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, and Sikkim  
 Nepal—Eastern Nepal  
*Mustela sibirica hodgsoni* Gray, 1843  
 India—Jammu and Kashmir, Himachal Pradesh, and Uttarakhand  
*Mustela sibirica canigula* Hodgson, 1842  
 India—Jammu and Kashmir (in Ladakh)  
 Nepal—Far-Western and Mid-Western Nepal
- Comments: Ellerman and Morrison-Scott (1951) placed this species under subgenus *Mustela* Linnaeus, 1758. Youngman (1982) placed it under subgenus *Lutreola* Wagner, 1841, while, Abramov (1999) included this species under subgenus *Kolonokus* Satunin, 1914
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**385. *Mustela altaica* Pallas, 1811**1811. *Mustela altaica* Pallas, Zoogr. Ross-Asiat. 1:98

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**Altai Weasel (Mountain Weasel)**

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- Type locality: Altai Mountains
- Synonyms: *Mustela temon* Hodgson, 1857  
*Putorius astutus* Milne-Edwards, 1870 (?)  
*Mustela longstaffi* Wroughton, 1911
- Subspecies: *Mustela altaica temon* Hodgson, 1857
- Distribution: *Mustela altaica temon* Hodgson, 1857  
 Bhutan—Central, East, and West Bhutan (restricted to the upper reaches of the Himalayas)  
 India—Jammu and Kashmir (in Disputed Kashmir and Ladakh), Himachal Pradesh, Sikkim, and Uttarakhand  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal (restricted to the upper reaches of the Himalayas)  
 Pakistan—Khyber Pakhtunkhwa
- Comments: Earlier placed under subgenus *Mustela* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Youngman 1982), then under subgenus *Gale* Wagner, 1841 (Abramov 1999)
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**386. *Mustela kathiah* Hodgson, 1835**1835. *Mustela (Putorius) kathiah* Hodgson, Jour. Asiat. Soc. Bengal, 4:702

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**Yellow-bellied Weasel**

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- Type locality: “Kachar Region”, Nepal  
 Synonyms: *Mustela (Putorius) auriventer* Hodgson, 1837  
 Subspecies: *Mustela kathiah kathiah* Hodgson, 1835  
                   *Mustela kathiah caporiaccoi* de Baux, 1935  
 Distribution: *Mustela kathiah kathiah* Hodgson, 1835  
                   Bhutan—Central, East, and West Bhutan (restricted to the upper reaches  
                   of the Himalayas)  
                   India—Assam, Arunachal Pradesh, Himachal Pradesh, Meghalaya,  
                   Manipur, Nagaland, Sikkim, and Uttarakhand  
                   Nepal—Eastern Nepal  
                   *Mustela kathiah caporiaccoi* de Baux, 1935  
                   India—Jammu and Kashmir (in Disputed Kashmir)  
                   Pakistan—Khyber Pakhtunkhwa  
 Comments: Earlier placed under subgenus *Mustela* Linnaeus, 1758 (Ellerman and  
 Morrison-Scott 1951), and under subgenus *Gale* Wagner, 1841  
 (Abramov 1999)
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**387. *Mustela strigidorsa* Gray, 1853**1853. *Mustela strigidorsa* Gray, Proc. Zool. Soc. London, 191 pp

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**Stripe-backed Weasel (Back-striped Weasel)**

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- Type locality: Sikkim, India  
 Synonyms: None  
 Subspecies: None  
 Distribution: *Mustela strigidorsa* Gray, 1853  
                   India—Assam, Arunachal Pradesh, Manipur, Sikkim, and West Bengal  
                   (in the Himalayas)  
                   Nepal—Central and Eastern Nepal  
 Comments: Ellerman and Morrison-Scott (1951) placed this species under subgenus *Mustela*  
 Linnaeus, 1758. Youngman (1982) included it under *Lutreola* Wagner, 1841.  
 Presently placed under *Cryptomustela* Abramov (2000) (Wozencraft 2005)
-

**Subfamily Galictinae Reig, 1956**

**Genus *Vormela* Blasius, 1884**

**Polecat**

Monotypic genus.

**388. *Vormela peregusna* (Guldenstaedt, 1770)**

1770. *Mustela peregusna* Guldenstaedt, Nova Comm. Imp. Acad. Sci. Petropoli, 14 (1):441

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European Marbled Polecat (Marbled Polecat)

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Type locality:	Banks of River Don, Russia
Synonyms:	<i>Mustela peregusna</i> Guldenstaedt, 1770 <i>Vormela sarmatica alpherakii</i> Birula, 1910
Subspecies:	None
Distribution:	<i>Vormela peregusna</i> (Guldenstaedt, 1770) Afghanistan—Balkh, Faryab, Ghazni, Jowzjan, Kabul, Kandahar, and Laghman Provinces Pakistan—Balochistan and Khyber Pakhtunkhwa
Comments:	None

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**Family Ailuridae Gray, 1843**

There has been considerable taxonomic uncertainty with regards to the family Ailuridae Gray, 1843. Some opine that this family is intermediate between procyonids and ursids (O'Brien et al. 1985; Sarich 1973; Tagle et al. 1986; Wayne et al. 1989; Wurster and Benirschke 1968), while some feel it more closely related to ursids than to procyonids (Todd and Pressman 1968; Zhang and Shi 1991) and some feel it more closely related to procyonids than to ursids (Goldman et al. 1989; Pecon Slattery and O'Brien et al. 1985). However, a few studies show that this family does not share any morphological characters with procyonids (Bugge 1978; Decker and Wozencraft 1991; Ginsburg 1982; Hunt 1974; Mayr 1986; Schmidt-Kittler 1981; Flynn et al. 1988; Wozencraft 1989a, b; Decker and Wozencraft 1991). Flynn et al. (2000, 2005), Fulton and Strobeck (2006), Sato et al. (2006), Sato et al. (2009), and Eizirik et al. (2010) include this family under Mustelidae group.

**Genus *Ailurus* F. G. Cuvier, 1825****Red Panda**

Monotypic genus.

**389. *Ailurus fulgens* F. G. Cuvier, 1825**

1815. *Ailurus fulgens* F. G. Cuvier, In E. Geoffroy Saint-Hilaire and F. G. Cuvier, Hist. Nat. Mammifères, pt. 3, 5(50), "Panda" 3 pp., 1 pl

**Red Panda (Lesser Panda)**


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Type locality:	"Indes orientales"
Synonyms:	<i>Ailurus ochraceus</i> Hodgson, 1847 <i>Ailurus refulgens</i> Milne-Edwards, 1874
Subspecies:	<i>Ailurus fulgens fulgens</i> F. Cuvier, 1825
Distribution:	<i>Ailurus fulgens fulgens</i> F. Cuvier, 1825 Bhutan—Central, East, and West Bhutan. India—Arunachal Pradesh, Sikkim, and West Bengal Nepal—Eastern and Western Nepal
Comments:	Reviewed by Roberts and Gittleman (1984)

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**Family Ursidae Fischer de Waldheim, 1817**

There has been considerable uncertainty with regards to taxonomy and phylogenetic relationship between the members of the family Ursidae Fischer de Waldheim, 1817 and also the relationship between the true bears and the Giant Panda (earlier included under family Ailuropodidae Pocock, 1916). Presently, the Giant Panda and the bears are included under this family (O'Brien et al. 1985; Sarich 1973; Wozencraft 1989a, b, 2005). Although three to five (including both extinct and extant) subfamilies have been recognized (Hendey 1980), recent molecular studies show all extant bears showing typical ursine relationship (Goldman et al. 1989; Yu et al. 2004b).

**Genus *Helarctos* Horsfield, 1825****Sun Bear**

Monotypic genus.

**390. *Helarctos malayanus* (Raffles, 1822)**

1822. *Ursus malayanus* Raffles, Trans. Linn. Soc. Zool. London, 13:254

**Malayan Sun Bear (Sun Bear)**


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Type locality:	Bencoolen Sumatra, Indonesia
Synonyms:	<i>Ursus malayanus</i> Raffles, 1822
Subspecies:	None
Distribution:	<i>Helarctos malayanus</i> (Raffles, 1822) Bangladesh—Chittagong and Sylhet India—Assam, Arunachal Pradesh, Manipur, and Mizoram
Comments:	Earlier included under <i>Ursus</i> Linnaeus, 1758 (Corbet and Hill 1992). Reviewed by Pocock (1932b) and Fitzgerald and Kausman (2002)

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## Genus *Melursus* Meyer, 1793

### Sloth Bear

Monotypic genus.

#### 391. *Melursus ursinus* (Shaw, 1791)

1791. *Bradypus ursinus* Shaw, Nat. Misc., 2 (unpaged), pl. 58–59

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#### Sloth Bear

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- Type locality: “Patna, north of the Ganges, Bengal”, India (Pocock, 1941)
- Synonyms: *Bradypus ursinus* Shaw, 1791  
*Melursus inornatus* Pucheran, 1855  
*Melursus ursinus valaha* Deraniyagala, 1949
- Subspecies: *Melursus ursinus ursinus* (Shaw, 1791)  
*Melursus ursinus inornatus* Pucheran, 1855
- Distribution: Endemic to South Asia  
*Melursus ursinus ursinus* (Shaw, 1791)  
 Endemic to South Asia  
 Bangladesh—Chittagong and Sylhet  
 Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan (in the terai region)  
 India—Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Chhattisgarh, Gujarat (parts of), Haryana, Jharkhand, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, and West Bengal  
 Nepal—Western Nepal  
*Melursus ursinus inornatus* Pucheran, 1855  
 Endemic to Sri Lanka, Central, Eastern, Northern, North Central, North Western (northern parts of), Sabaragamuwa, Southern (eastern parts of), Uva, and Western (parts of) Provinces
- Comments: Earlier included under *Ursus* Linnaeus, 1758 (Corbet and Hill 1992). Reviewed by Pocock (1932b). The populations of Sloth Bear in Bangladesh are presumed to be extinct as they have been last documented in the early 1990s
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## Genus *Ursus* Linnaeus, 1758

### Brown Bear

#### 392. *Ursus arctos* Linnaeus, 1758

1758. *Ursus arctos* Linnaeus, Syst. Nat. 10th ed., 1:47

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#### Brown Bear

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- Type locality: Northern Sweden
- Synonyms: *Ursus ursus* Boddaert, 1777 (renaming of *arctos*)  
*Ursus isabellinus* Horsfield, 1826  
*Ursus pruinosus* Blyth, 1854
- Subspecies: *Ursus arctos isabellinus* Horsfield, 1826
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**Brown Bear**

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- Distribution: *Ursus arctos isabellinus* Horsfield, 1826  
 Afghanistan—Badakhshan and Nuristan Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir) and Sikkim  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Khyber Pakhtunkhwa
- Comments: The taxon *Ursus arctos pruinosus* Blyth, 1854 reported from Tibet, China may possibly be also occurring in South Asia; however, due to the want of locality record it is not included here
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**393. *Ursus thibetanus* (G. Cuvier, 1823)**1823. *Selenarctos thibetanus* G. Cuvier, Rech. Oss. Foss. Nouv. Ed., 4:325

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**Asiatic Black Bear (Himalayan Black Bear)**

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- Type locality: Sylhet, Assam, India (Sylhet, Bangladesh)
- Synonyms: *Selenarctos thibetanus* G. Cuvier, 1823  
*Ursus torquatus* Wagner, 1841 (renaming of *thibetanus*)  
*Ursus torquatus* var. *arboreus* Gray, 1864 (?)  
*Selenarctos thibetanus laniger* Pocock, 1932
- Subspecies: *Ursus thibetanus thibetanus* (G. Cuvier, 1823)  
*Ursus thibetanus gedrosianus* Blanford, 1877  
*Ursus thibetanus laniger* (Pocock, 1932)
- Distribution: *Ursus thibetanus thibetanus* (G. Cuvier, 1823)  
 Bangladesh—Chittagong and Sylhet  
 Bhutan—Central, East, and West Bhutan  
 India—Arunachal Pradesh, Meghalaya, Nagaland, and Sikkim  
 Nepal—Eastern and Mid-Western Nepal  
*Ursus thibetanus gedrosianus* Blanford, 1877  
 Endemic to Pakistan, Balochistan (in Southern region)  
*Ursus thibetanus laniger* (Pocock, 1932)  
 Endemic to South Asia  
 Afghanistan—Kabul and Nuristan Provinces  
 India—Jammu and Kashmir (including Disputed Kashmir) and Himachal Pradesh  
 Pakistan—Khyber Pakhtunkhwa and Punjab
- Comments: Ellerman and Morrison-Scott (1951) and Gromov and Baranova (1981) included this taxon under *Selenarctos* Heude, 1901. However, it has been retained under *Ursus* Linnaeus, 1758 following Pocock (1932b) and Yu et al. (2004a, b)
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**Suborder Feliformia Kretzoi, 1938**

This suborder is represented by five families in South Asia (Wozencraft 2005; Eizirik et al. 2010).

### Family Felidae Fischer de Waldheim, 1817

Two subfamilies represent this family in South Asia (Wozencraft 2005). Simpson (1945), Honacki et al. (1982), McKenna and Bell (1997) and Van Gelder (1977) included majority of the cats in *Felis* Linnaeus, 1758 excluding *Panthera* Oken, 1816 and *Acinonyx* Brookes, 1828. Although Pocock (1917) recognized Acinonychinae as subfamily, currently only two subfamilies, Felinae Fischer de Waldheim, 1817 and Pantherinae Pocock, 1917 are recognized.

#### Subfamily Felinae Fischer de Waldheim, 1817

Includes all the non-pantherine cats in six genera in South Asia. One taxon, *Acinonyx jubatus venaticus* (Griffith, 1821), is extinct in South Asia.

#### Genus *Acinonyx* Brookes, 1828

##### Cheetah

Extinct in South Asia.

#### 394. *Acinonyx jubatus venaticus* (Griffith, 1821)

1821. *Felis venatica* Griffith, Vert. Anim. Carnivora, 93

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##### Cheetah

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Type locality:	India
Synonyms:	<i>Felis venatica</i> Griffith, 1821 <i>Acinonyx venator</i> Brookes, 1828
Subspecies:	<i>Acinonyx jubatus vaenaticus</i> (Griffith, 1821)
Distribution:	Extinct in South Asia <i>Acinonyx jubatus venaticus</i> (Griffith, 1821) Afghanistan—Extinct India—Extinct Pakistan—Extinct
Comments:	Widely distributed in Indian mainland in the past, now totally annihilated

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#### Genus *Caracal* Gray, 1843

##### Caracal

This is a monotypic genus. Closely related to *Felis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Weigel 1961; McKenna and Bell 1997; Hemmer 1978; Král and Zima 1980; Werdelin 1981; Groves 1982a; Corbet and Hill 1992) than *Lynx* Kerr, 1792 (Simpson 1945).

**395. *Caracal caracal* (Schreber, 1776)**1776. *Felis caracal* Schreber, Die Säugethiere, 3(24):413, 587, 3(16):pl. 110

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**Caracal**

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- Type locality: Table Mountain, Cape Town, South Africa  
 Synonyms: *Felis caracal* Schreber, 1776  
*Felis caracal schmitzi* Matschie, 1912  
*Felis caracal bengalensis* Fischer, 1829  
 Subspecies: *Caracal caracal schmitzi* (Matschie, 1912)  
 Distribution: *Caracal caracal schmitzi* (Matschie, 1912)  
 Afghanistan—Jowzjan Province  
 India—Gujarat, Madhya Pradesh Punjab, Rajasthan, and Uttar Pradesh  
 Pakistan—Balochistan and Sindh  
 Comments: Earlier included as subgenus of genus *Felis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951), now considered distinct (Weigel 1961; Hemmer 1978; Werdelin 1981)
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**Genus *Felis* Linnaeus, 1758****Cats****396. *Felis chaus* Schreber, 1777**1777. *Felis chaus* Schreber, Die Säugethiere, 3(24):414, 2(13):pl. 110.

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**Jungle Cat**

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- Type locality: “Terek River, North of the Caucasus, Dagestan, USSR”  
 Synonyms: *Felis affinis* Gray, 1830  
*Felis kutas* Pearson, 1832  
*Lynchus erythrotus* Hodgson, 1836  
*Felis jacquemontii* Geoffroy, 1844  
*Felis nigricens* Gray, 1863  
*Felis (Felis) maimanah* Zukowsky, 1915  
 Subspecies: *Felis chaus affinis* Gray, 1830  
*Felis chaus kutas* Pearson, 1832  
*Felis chaus maimanah* Zukowsky, 1915  
*Felis chaus prateri* Pocock, 1939  
*Felis chaus kelaarti* Pocock, 1939
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 Jungle Cat
 

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- Distribution: *Felis chaus affinis* Gray, 1830  
 Bhutan—In the terai regions of Bhutan  
 India—Assam, Bihar, Haryana, Himachal Pradesh, Jammu and Kashmir (also in parts of Disputed Kashmir), Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttarakhand, and Uttar Pradesh  
 Nepal—Eastern Nepal
- Felis chaus kutas* Pearson, 1832  
 Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
 India—Chhattisgarh, Jharkhand, Gujarat (in Kutch), Madhya Pradesh, Orissa, and West Bengal
- Felis chaus maimanah* Zukowsky, 1915  
 Afghanistan—Faryab, Helmand, Kandahar, Laghman, and Nangarhar Provinces
- Felis chaus prateri* Pocock, 1939  
 Endemic to South Asia  
 India—Gujarat, Maharashtra, and Rajasthan  
 Pakistan—Sindh and Punjab
- Felis chaus kelaarti* Pocock, 1939  
 Endemic to South Asia  
 India—Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu  
 Sri Lanka—Northern and North-Western Provinces
- Comments: Nine subspecies are recognized of which six occur in South Asia (Ellerman and Morrison-Scott 1951; Wozencraft 2005)
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**397. *Felis sylvestris* Schreber, 1777**1777. *Felis (Catus) sylvestris* Schreber, Die Säugethiere, 3(23):397

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 Wild Cat
 

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- Type locality: Germany
- Synonyms: *Felis ornata* Gray, 1830  
*Felis servalina* Jardine, 1834  
*Felis libyca ornata* Gray, 1830  
*Felis torquata* Blyth, 1863
- Subspecies: *Felis sylvestris onata* Gray, 1830
- Distribution: *Felis sylvestris onata* Gray, 1830  
 Afghanistan—Bamian and Nuristan Provinces  
 Pakistan—Sindh  
 India—Gujarat, Madhya Pradesh, Maharashtra, and Rajasthan
- Comments: The taxon *Felis sylvestris* is a polytypic species with three wild subspecies, *F. s. libyca* (the African), *F. s. sylvestris* (the European) and *F. s. ornata* (the Asian), and a domesticated form, *F. s. catus* (Ragni and Randi 1986; Randi and Ragni 1991; Wozencraft 1993; Johnson and O'Brien 1997)
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**398. *Felis margarita* Loche, 1858**1858. *Felis margarita* Loche, Rev. Mag. Zool. Paris, ser. 2, 10:49

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**Sand Cat**

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Type locality:	Near Negenca (Sahara) [Algeria]
Synonyms:	None
Subspecies:	<i>Felis margarita scheffeli</i> Hemmer, 1974
Distribution:	<i>Felis margarita scheffeli</i> Hemmer, 1974 Endemic to Pakistan Pakistan—Nushki Desert, Balochistan
Comments:	Revised by Schauenberg (1974) and Hemmer et al. (1976). May possibly occur on Afghanistan (Wozencraft 2005, also see Roberts 1997). Hemmer et al. (1976) reported four distinct subspecies based on morphological characters of which the taxon <i>scheffeli</i> Hemmer, 1974 occurs in South Asia in Pakistan

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**Genus *Lynx* Kerr, 1792****Lynx**

Earlier considered subgenus, under genus *Felis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Hemmer 1978; Groves 1982a; McKenna and Bell 1997), this genus is now considered distinct (Matyushkin 1979; Werdelin 1981; García-Perea 1992).

**399. *Lynx lynx* (Linnaeus, 1758)**1758. *Felis lynx* Linnaeus, Syst. Nat., 10th ed., 1:43

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**Eurasian Lynx**

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Type locality:	Near Uppsala, Sweden
Synonyms:	<i>Felis lynx</i> Linnaeus, 1758 <i>Felis isabellina</i> Blyth, 1847 <i>Lyncus tibetanus</i> Gray, 1863 (?)
Subspecies:	<i>Lynx lynx isabellinus</i> (Blyth, 1847)
Distribution:	<i>Lynx lynx isabellinus</i> (Blyth, 1847) Afghanistan—Badakhshan, Central (parts of), Nuristan Provinces India—Himachal Pradesh and Jammu and Kashmir (also in parts of Disputed Kashmir) Nepal—Eastern and Western Nepal
Comments:	None. This taxon may probably occur in Bhutan

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## Genus *Otocolobus* Brandt, 1841

### Manul

Monotypic genus. *Otocolobus* Brandt, 1841, earlier considered subgenus of *Felis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; McKenna and Bell 1997; Wozencraft 2005), is presently treated distinct (O'Brien and Johnson 2007; Eizirik et al. 2010).

#### 400. *Otocolobus manul* (Pallas, 1776)

1776. *Felis manul* Pallas, Reise Prov. Russ. Reichs, 3:692

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Pallas' Cat

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Type locality:	Kulusutai, Borzja District, Chita Province, USSR
Synonyms:	<i>Felis manul satuni</i> Lydekker, 1907
	<i>Felis nigrippectus</i> Hodgson, 1842
	<i>Felis manul nigripsecta</i> Hodgson, 1842
	<i>Felis manul ferruginea</i> (Ognev, 1928)
	<i>Otocolobus manul ferrugineus</i> Ognev, 1928
Subspecies:	<i>Otocolobus manul ferruginea</i> (Ognev, 1928)
	<i>Otocolobus manul nigripsecta</i> Hodgson, 1842
Distribution:	<i>Otocolobus manul ferruginea</i> Ognev, 1928
	Afghanistan—Badakhshan Province
	Pakistan—Balochistan
Comments:	<i>Otocolobus manul nigripsecta</i> Hodgson, 1842
	India—Jammu and Kashmir (in Ladakh)
	Revised by Pocock (1907), Birula (1913, 1916), Ognev (1935) and Schwangart (1936). May possibly also occur in Bhutan ( <i>see</i> Wangchuk et al. 2004)

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## Genus *Pardofelis* Severtzov, 1858

### Marbled Cats

Recent molecular taxonomic studies indicate that the genus *Pardofelis* Severtzov, 1858, earlier considered monotypic genus, includes taxa belonging to the genus *Catopuma* Severtzov, 1858 (Johnson et al. 2006; O'Brien and Johnson 2007; Eizirik et al. 2010). Earlier considered a subgenus of genus *Felis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; McKenna and Bell 1997) considered distinct following Corbet and Hill (1992) who opined combining *Catopuma* and *Prionailurus* with *Pardofelis* based on Hemmer (1978) and Groves (1982a). Taxonomic confusion still persists regarding its placement in Felinae or in Pantherinae as it shares similarities with both (Kratochvíl 1982; Collier and O'Brien 1985; Salles 1992; Bininda-Emonds et al. 1999; Mattern and McLennan 2000). However, Johnson et al. (2006) place it closer to Pantherines. Two species are found in South Asia.

**401. *Pardofelis temminckii* (Vigors and Horsfield, 1827)**1827. *Felis temmincki* Vigors and Horsfield, Zool. J., 3:451

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**Asiatic Golden Cat (Golden Cat)**

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- Type locality: Sumatra, Indonesia
- Synonyms: *Felis temmincki* Vigors and Horsfield, 1827  
*Catopuma temminckii* (Vigors and Horsfield, 1827)  
*Felis moormensis* Hodgson, 1831  
*Felis aurata* Blyth, 1863  
*Felis nigriscens* Gray, 1863
- Subspecies: None
- Distribution: *Pardofelis temminckii* (Vigors and Horsfield, 1827)  
 Bangladesh—Chittagong  
 Bhutan—No exact location  
 India—Arunachal Pradesh, Assam, Meghalaya, Mizoram, and Nagaland  
 Nepal—Central, Eastern, and Far-Western Nepal
- Comments: Earlier included under subgenus *Profelis* Severtzov, 1858 (Pocock 1932c; Ellerman and Morrison-Scott 1951; Weigel 1961; Král and Zima 1980; Kratochvíl 1982; Johnson and O'Brien 1997; McKenna and Bell 1997), then included under *Catopuma* Severtzov, 1858 (Hemmer 1978; Groves 1982a; Corbet and Hill 1992; Wozencraft 1993, 2005). Presently included along with the taxon *marmorata* under genus *Pardofelis* based on genetic analysis (Johnson et al. 2006; O'Brien and Johnson 2007)
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**402. *Pardofelis marmorata* (Martin, 1837)**1837. *Felis marmorata* Martin, Proc. Zool. Soc. London, 1836:108

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**Marbled Cat**

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- Type locality: Sumatra, Indonesia (Restricted by Robinson and Kloss, 1919)
- Synonyms: *Felis marmorata* Martin, 1837  
*Felis charltonii* Gray, 1846  
*Felis marmorata charltonii* Gray, 1846  
*Felis ogilbii* Hodgson, 1847  
*Leopardus dosul* Gray, 1863 (*nomen nudum*)  
*Felis duvaucellii* Hodgson, 1863 (*nomen nudum*)
- Subspecies: *Pardofelis marmorata charltonii* (Gray, 1846)
- Distribution: *Pardofelis marmorata charltonii* (Gray, 1846)  
 Bangladesh—Extinct  
 Bhutan—In the terai regions of Bhutan  
 India—Arunachal Pradesh, Jammu and Kashmir (in Ladakh), Meghalaya, and Sikkim  
 Nepal—Central, Eastern, and Western Nepal
- Comments: In Bangladesh reported from Chittagong, no recent sightings have been reported. See comments under *Pardofelis temminckii*
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## Genus *Prionailurus* Severtzov, 1858

### Asian Small Cats

Earlier considered subgenus of genus *Felis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951), considered distinct by Corbet and Hill (1992).

#### 403. *Prionailurus bengalensis* (Kerr, 1792)

1792. *Felis bengalensis* Kerr, *In* Linnaeus, *Anim. Kingdom*, 1:151

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#### Leopard Cat

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- Type locality: Southern Bengal, India
- Synonyms: *Felis bengalensis* Kerr, 1792  
*Felis nipalensis* Horsfield and Vigors, 1829(?)  
*Leopardus ellioti* Gray, 1842  
*Felis herschelii* Gray, 1869(?)  
*Felis bengalensis bengalensis* Kerr, 1792  
*Leopardus horsfieldii* Gray, 1842  
*Felis nipalensis* Hodgson, 1832  
 (Not of Vigors and Horsfield, 1829)  
*Felis pardochrous* Hodgson, 1844  
*Felis bengalensis horsfieldi* Gray, 1842  
*Felis bengalensis trevelyani* (Pocock, 1939)
- Subspecies: *Prionailurus bengalensis bengalensis* (Kerr, 1792)  
*Prionailurus bengalensis horsfieldii* (Gray, 1842)  
*Prionailurus bengalensis trevelyani* Pocock, 1939
- Distribution: *Prionailurus bengalensis bengalensis* (Kerr, 1792)  
 Bangladesh—Chittagong, Khulna (in Sunderbans), Patuakhali, and Sylhet  
 India—Andhra Pradesh (parts of), Assam, Bihar, Chhattisgarh, Jharkhand, Gujarat (only forested tracts), Haryana, Karnataka (parts of), Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Rajasthan (only forested tracts), Tamil Nadu, Tripura, Uttar Pradesh, and West Bengal (excepting the Himalayas)  
*Prionailurus bengalensis horsfieldii* (Gray, 1842)  
 Bhutan—No exact location  
 India—Assam, Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir, Sikkim, Uttarakhand, and West Bengal (in the Himalayan tracts)  
 Nepal—Mid-Western and Western Nepal  
*Prionailurus bengalensis trevelyani* Pocock, 1939  
 Afghanistan—Badakhshan, Baghlan, Ghazni, Khost, Konar, Laghman, Lowgar, Paktia, Paktika, Parwan, Nangarhar, Nuristan, and Wardak Provinces  
 India—Jammu and Kashmir (in Disputed Kashmir)  
 Pakistan—Balochistan and Khyber Pakhtunkhwa
- Comments: Subspecies recognition following Ellerman and Morrison-Scott (1951)
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**404. *Prionailurus rubiginosus* (I. Geoffroy, 1831)**1831. *Felis rubiginosa* I. Geoffroy, *In* Belanger (ed.), *Voy. Ind. Orient. Zool.*, 3:140

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- Type locality: Pondicherry, India
- Synonyms: *Felis rubiginosa* I. Geoffroy, 1831  
*Felis rubiginosa rubiginosa* I. Geoffroy, 1831  
*Felis rubiginosa phillipsi* Pocock, 1939
- Subspecies: *Prionailurus rubiginosus rubiginosus* (I. Geoffroy, 1831)  
*Prionailurus rubiginosus phillipsi* (Pocock, 1939)
- Distribution: Endemic to South Asia  
*Prionailurus rubiginosus rubiginosus* (I. Geoffroy, 1831)  
 India—Andhra Pradesh, Gujarat (only forested tracts), Karnataka, Kerala, Madhya Pradesh (parts of), Maharashtra, Orissa (parts of), Rajasthan (only forested tracts), and Tamil Nadu  
*Prionailurus rubiginosus phillipsi* Pocock, 1939  
 Sri Lanka—Central, Eastern, Sabaragamuwa, North Central, North Western, Southern, Uva, and Western Provinces
- Comments: Herrington (1986) was of the view that *Prionailurus rubiginosus* (I. Geoffroy, 1831) was more closely related to *Felis* Linnaeus, 1758 than to *Prionailurus* Severtzov, 1858 as the taxon lacks some of the distinctive characters of *Prionailurus* Severtzov, 1858 and suggested that it could be considered a distinct genus. However, it is retained under *Prionailurus* Severtzov, 1858 based on recent molecular studies (Johnson et al. 2006; O'Brien and Johnson 2007; Eizirik et al. 2010)
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**405. *Prionailurus viverrinus* (Bennett, 1833)**1833. *Felis viverrinus* Bennett, *Proc. Zool. Soc. London*, 1833:68**Fishing Cat**

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- Type locality: “From the continent of India”
- Synonyms: *Felis viverrina* Bennett, 1833  
*Felis viverrinus* Bennett, 1833  
*Felis himalayanus* Jardine, 1834  
*Felis viverriceps* Hodgson, 1836  
*Viverriceps bennettii* Gray, 1867
- Subspecies: None
- Distribution: *Prionailurus viverrinus* (Bennett, 1833)  
 Bangladesh—Barisal, Chittagong, Comilla, Faridpur, Khulna, Noakhali, Pabna, and Sylhet  
 Bhutan—No exact location  
 India—Andhra Pradesh (parts of), Assam, Bihar, Jharkhand, Kerala (in Western Ghats), Maharashtra (in Western Ghats), Manipur, Meghalaya, Mizoram, Nagaland, Orissa (parts of), Sikkim, Tripura, Uttar Pradesh, and West Bengal  
 Nepal—Central Nepal  
 Pakistan—Sindh  
 Sri Lanka—Central, Eastern, North Central, North Western, Sabaragamuwa, Southern, Uva, and Western Provinces
- Comments: None
-

### Subfamily Pantherinae Pocock, 1917

Five species in three genera occur in South Asia.

#### Genus *Neofelis* Gray, 1867

##### Clouded Leopard

Earlier considered distinct genus by Pocock (1917), Ellerman and Morrison-Scott (1951). This taxon was later included under *Pardofelis* Severtzov, 1858 (Hemmer 1978; Herrington 1986; Groves 1982a; Corbet and Hill 1992). Reverted back to generic status (Weigel 1961; Kratochvíl 1982; Mattern and McLennan 2000).

#### 406. *Neofelis nebulosa* (Griffith, 1821)

1821. *Felis nebulosa* Griffith, Gen. Particular Descrip. Vert. Anim., p. 37, pl

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##### Clouded Leopard

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Type locality: “Brought from Canton” (Guangdong (=Guangzhou), China)

Synonyms: *Felis nebulosa* Griffith, 1821

*Felis macrosceloides* Hodgson, 1853

*Felis macrocelis* Tickell, 1843 (Not of Temminck, 1824)

Subspecies: *Neofelis nebulosa macrosceloides* Hodgson, 1853

Distribution: *Neofelis nebulosa macrosceloides* Hodgson, 1853

Bangladesh—Chittagong and Sylhet

Bhutan—Central, East, and West Bhutan

India—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram,  
Nagaland, Sikkim, Tripura, and West Bengal (only in the Himalayas)

Nepal—Central and Eastern Nepal

Comments: See Kitchener et al. (2006) for geographical variability in this taxon. Reviewed by Christiansen (2008)

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#### Genus *Panthera* Oken, 1816

##### Big Cats

Includes four species in the region. Pocock (1930a, b, c) while including the big cats under the genus *Panthera* treated the taxon *uncia* Schreber, 1775 under a distinct genus *Uncia* Gray, 1854. Some treated *Uncia* Gray, 1854 as subgenus of *Panthera* Oken, 1816 (Simpson 1945; Ellerman and Morrison-Scott 1951), while some treated it as distinct genus (Weigel 1961; Heptner et al. 1967; Kratochvíl 1982; Wozencraft 2005). Recent genetic studies show no distinction between the two genera and *Uncia* is a junior synonym of *Panthera* (Johnson et al. 2006; Agnarsson et al. 2010; Eizirik et al. 2010).

**407. *Panthera leo* (Linnaeus, 1758)**1758. *Felis leo* Linnaeus, Syst. Nat. 10th ed., 1:41

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**Asiatic Lion (Indian Lion)**

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- Type locality: "Africa" (Restricted by J. A. Allen, 1924 to Constantine, Algeria)
- Synonyms: *Felis leo* Linnaeus, 1758  
*Felis leo persicus* Meyer, 1826  
*Felis leo bengalensis* Bennett, 1829  
*Leo asiaticus* Brehm, 1829  
*Felis leo goojratensis* Smee, 1833  
*Felis leo indicus* Blainville, 1843
- Subspecies: *Panthera leo persica* (Meyer, 1826)
- Distribution: *Panthera leo persica* (Meyer, 1826)  
 Endemic to India, Gujarat (in Gir Forest)
- Comments: Ellerman and Morrison-Scott (1951) assigned it to subgenus *Leo* Oken, 1816. Accepted under subgenus *Panthera* Oken, 1816 (Pocock 1930c; Weigel 1961; Hemmer 1978; Kratochvíl 1982; Groves 1982a). This taxon has become extinct from Afghanistan and Pakistan in recent times
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**408. *Panthera pardus* (Linnaeus, 1758)**1758. *Felis pardus* Linnaeus, Syst. Nat. 10th ed., 1:41

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**Leopard**

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- Type locality: "Egypt" (Thomas 1911)
- Synonyms: *Felis pardus* Linnaeus, 1758  
*Felis fusca* Meyer, 1794  
*Felis longicaudata* Valenciennes, 1856  
 (Not of Blainville, 1843)  
*Leopardus perniger* Gray, 1863  
*Panthera pardus saxicolor* Pocock, 1927  
*Panthera pardus sindica* Pocock, 1930  
*Panthera pardus millardi* Pocock, 1927
- Subspecies: *Panthera pardus fusca* (Meyer, 1794)  
*Panthera pardus kotiya* Deraniyagala, 1956
- Distribution: *Panthera pardus fusca* (Meyer, 1794)  
 Afghanistan—Badakhshan, Badghis, Baghlan, Bamian, Ghazni, Ghowr, Kabul, Konar, Khowst, Laghman, Lowgar, Nangarhar, Nuristan, Oruzgan, Paktiya, Paktika, Parvan, Samangan, Sar-e-Pol, Takhar, Vardak, and Zabol Provinces  
 Bangladesh—Chittagong and Sylhet  
 Bhutan—Central, East, and West Bhutan  
 India—Throughout, except extreme arid regions of Jammu and Kashmir, Rajasthan, and Gujarat  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Pakistan—Balochistan  
*Panthera pardus kotiya* Deraniyagala, 1956  
 Endemic to Sri Lanka, Uva Province
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## Leopard

Comments: Included under subgenus *Panthera* Oken, 1816 (Pocock 1930a, b; Ellerman and Morrison-Scott 1951; Hemmer 1978; Kratochvíl 1982; Groves 1982a). Revised by Pocock (1930a, b) and Miththapala et al. (1996). Miththapala et al. (1996), based on molecular data, proposed eight subspecies globally, while Uphyrkina et al. (2001) recognized an additional subspecies. See Khorozyan et al. (2006) for detailed morphology-based analysis of the species

**409. *Panthera tigris* (Linnaeus, 1758)**1758. *Felis tigris* Linnaeus, Syst. Nat. 10th ed., 1:41

## Bengal Tiger

Type locality: “Bengal”, India (Thomas 1911)

Synonyms: *Felis tigris* Linnaeus, 1758  
*Felis virgata* Illiger, 1815  
*Tigris striatus* Severtzov, 1858 (Renaming of *tigris*)  
*Tigris regalis* Gray, 1867 (Renaming of *tigris*)

Subspecies: *Panthera tigris tigris* (Linnaeus, 1758)  
*Panthera tigris virgata* (Illiger, 1815)

Distribution: *Panthera tigris tigris* (Linnaeus, 1758)  
 Bangladesh—Barisal, Chittagong, Khulna, and Sylhet districts  
 Bhutan—Central, East, and West Bhutan (parts of, nowhere common)  
 India—Andhra Pradesh, Arunachal Pradesh, Assam, Karnataka, Kerala, Himachal Pradesh, Madhya Pradesh, Meghalaya, Nagaland, Orissa, Rajasthan, Tamil Nadu, Uttarakhand, and West Bengal  
 Nepal—Central, Eastern, and Far-Western Nepal  
*Panthera tigris virgata* (Illiger, 1815)  
 Afghanistan—Extinct. Reported from Konduz and Takhar Provinces

Comments: Reviewed by Pocock (1929), Mazák (1979, 1981) and Luo et al. (2004). Cracraft et al. (1998) based on the mitochondrial sequence data divided all extant tigers into two species, namely, *Panthera tigris* and *Panthera sumatrae*, while Luo et al. (2004) recognized six extant subspecies. The Caspian Tiger *Panthera tigris virgata* (Illiger, 1815) became extinct by 1970s (Nowell and Jackson 1996)

**410. *Panthera uncia* (Schreber, 1775)**1776. *Felis uncia* Schreber, Die Säugethiere, 2(14):pl. 100 (1775), text, 3(22):386-387 (1777)

## Snow Leopard

Type locality: “Altai Mountains” (Pocock, 1930)

Synonyms: *Felis uncia* Schreber, 1776  
*Uncia uncia* (Schreber, 1775)  
*Felis uncioides* Horsfield, 1855

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**Snow Leopard**

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Subspecies:	None
Distribution:	<i>Panthera uncia</i> (Schreber, 1775) Afghanistan—Badakhshan, Laghman, and Nuristan Provinces Bhutan—Central, East, and West Bhutan India—Arunachal Pradesh, Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), Sikkim, and Uttarakhand Nepal—Eastern, Mid-Western, and Western Nepal Pakistan—Khyber Pakhtunkhwa
Comments:	Revised by Pocock (1930a, b) and reviewed by Hemmer (1972). Earlier included under genus <i>Uncia</i> Gray, 1854 (Weigel 1961; Heptner et al. 1967; Kratochvíl 1982; Wozencraft 2005), reassigned to the genus <i>Panthera</i> Oken, 1816 (Johnson et al. 2006, Eizirik et al. 2010, Agnarsson et al. 2010)

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**Family Prionodontidae Pocock, 1933**

Gill (1872), Simpson (1945), Ellerman and Morrison-Scott (1951), Rosevear (1974), Wozencraft (1989b), and Hunt (2001) considered the taxon *Prionodon* Horsfield, 1822 under subfamily Viverrinae Gray, 1821. However, Pocock (1933) and Gaubert et al. (2004) considered the taxon *Prionodon* Horsfield, 1822 distinct and placed it in a separate group Prionodontinae Pocock, 1933, which is presently treated as distinct family after Gaubert and Veron (2003), Gaubert and Cordeiro-Estrela (2006), Barycka (2007), Agnarsson et al. (2010), and Eizirik et al. (2010).

**Genus *Prionodon* Horsfield, 1822****Linsang**

Includes one species in South Asia.

**411. *Prionodon pardicolor* Hodgson, 1841**

1841. *Prionodon pardicolor* Hodgson, Calcutta Jour. Nat. Hist., 2:57.

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**Spotted Linsang**

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Type locality:	“Sikkim, sub-Himalayan mountains”, India
Synonyms:	<i>Viverra pardicator</i> Schinz, 1844 (Error for <i>pardicolor</i> ) <i>Prionodon pardochrous</i> Gray, 1863 ( <i>nomen nudum</i> )
Subspecies:	None
Distribution:	<i>Prionodon pardicolor</i> Hodgson, 1841 Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan India—Arunachal Pradesh (parts of), Assam, Meghalaya, and Sikkim Nepal—Central and Eastern Nepal.
Comments:	Earlier included under subgenus <i>Pardictis</i> Thomas, 1925 of subfamily Viverrinae Gray, 1821 (Ellerman and Morrison-Scott 1951). See Duckworth (2010) for correction for date of publication of the nomen

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**Family Hyaenidae Gray, 1821**

**Genus *Hyaena* Brisson, 1762**

**Hyaena**

**412. *Hyaena hyaena* (Linnaeus, 1758)**

1758. *Canis hyaena* Linnaeus, Syst. Nat. 10th ed., 1:40.

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Striped Hyaena.

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Type locality: Benna Mountains, Laristan, Southern Persia (Thomas 1911).

Synonyms: *Canis hyaena* Linnaeus, 1758  
*Hyaena striata* Zimmermann, 1777  
 (Renaming of *hyaena* Linnaeus) (unavailable)  
*Hyaena orientalis* Tiedemann, 1808  
 (Renaming of *hyaena* Linnaeus)  
*Hyaena fasciata* Thunberg, 1820  
 (Renaming of *hyaena* Linnaeus)  
*Hyaena antiquorum* Temminck, 1820  
 (Renaming of *hyaena* Linnaeus)  
*Hyaena virgata* Ogilby, 1840  
*Hyaena vulgaris indica* Blainville, 1844

Subspecies: None

Distribution: *Hyaena hyaena* (Linnaeus, 1758)  
 Afghanistan—Badghis, Farah, Helmand, Herat, Kandahar, Konar, Laghman, Nimroz, Nuristan, Paktika, and Zabol Provinces  
 India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka (parts of), Kerala (northern parts), Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Far-Western, and Mid-Western Nepal  
 Pakistan—Balochistan and Sindh

Comments: None

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**Family Herpestidae Bonaparte, 1845**

Ellerman and Morrison-Scott (1951) included subfamily Herpestinae under family Viverridae Gray, 1821; however, the subfamily Herpestinae has been upgraded to family level and considered distinct from family Viverridae (Pocock 1916, 1919, 1939; Gregory and Hellman 1939; Wurster and Benirschke 1968; Hunt 1987; Flynn et al. 1988; Wozencraft 1989a, b, 2005; Corbet and Hill 1992). Reviewed by Agnarsson et al. (2010) and Eizirik et al. (2010).

**Genus *Herpestes* Illiger, 1811**

**Mongoose**

Revised by Pocock (1919, 1937, 1941), Bechthold (1939), Taylor and Matheson (1999).

**413. *Herpestes edwardsii* (E. Geoffroy Saint-Hilaire, 1818)**1818. *Ichneumon edwardsii* E. Geoffroy Saint-Hilaire, *Descrip. De L' Egypte*, 2:139

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**Indian Grey Mongoose**

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Type locality: "Indes orientales" (Restricted to Madras, India by Pocock, 1933)

Synonyms: *Ichneumon edwardsii* E. Geoffroy Saint-Hilaire, 1818*Ichneumon griseus* E. Geoffroy Saint-Hilaire, 1818*Herpestes ponticeriana* Gervais, 1841*Herpestes griseus* Kelaart, 1852 (not of Geoffroy, 1818)*Herpestes ferrugineus* Blanford, 1874*Herpestes andersoni* Murray, 1884*Herpestes mungo* Blanford, 1888 (not of Gmelin, 1788)*Mungos mungo pallens* Ryley, 1914*Mungos lanka* Wroughton, 1915*Mungos mungo ellioti* Wroughton, 1915*Mungos mungo moerens* Wroughton, 1915*Herpestes edwardsi carnaticus* Thomas, 1921*Herpestes griseus montanus* Bechthold, 1936*Mangusta (Herpestes) nyula* Hodgson, 1936Subspecies: *Herpestes edwardsii edwardsii* (E. Geoffroy Saint-Hilaire, 1818)*Herpestes edwardsii nyula* (Hodgson, 1836)*Herpestes edwardsii ferrugineus* Blanford, 1874*Herpestes edwardsii lanka* (Wroughton, 1915)*Herpestes edwardsii montanus* Bechthold, 1936Distribution: *Herpestes edwardsii edwardsii* (E. Geoffroy Saint-Hilaire, 1818)

Endemic to India, Andhra Pradesh, Chhattisgarh (parts of), Karnataka, Kerala, Maharashtra, and Tamil Nadu

*Herpestes edwardsii nyula* (Hodgson, 1836)

Endemic to South Asia.

Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur,

Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet

Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan

India—Assam, Arunachal Pradesh (parts of), Bihar, Chhattisgarh (parts of),

Himachal Pradesh, Jharkhand, Madhya Pradesh, Manipur, Meghalaya,

Mizoram, Nagaland, Orissa, Punjab, Sikkim, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal

Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal.

Only in the foothill plains

*Herpestes edwardsii ferrugineus* Blanford, 1874

Endemic to South Asia

Afghanistan—Unknown locality

India—Gujarat and Rajasthan

Pakistan—Balochistan and Sindh

*Herpestes edwardsii lanka* (Wroughton, 1915)

Endemic to Sri Lanka, Central, Eastern, North Central, North Western,

Sabargamuwa, Southern, and Uva Provinces

*Herpestes edwardsii montanus* Bechthold, 1936

Endemic to Pakistan, Khyber Pakhtunkhwa

Comments: In Afghanistan, the taxon *Herpestes edwardsii ferrugineus* Blanford, 1874 may probably occur in Nuristan and also in parts of Eastern Afghanistan. There are no confirmed sighting records of this species in Afghanistan

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**414. *Herpestes vitticollis* Bennett, 1835**1835. *Herpestes vitticollis* Bennett, Proc. Zool. Soc. London, 67

## Stripe-necked Mongoose

- Type locality: “Travancore”, India  
 Synonyms: *Crossarchus rubiginosus* Wagner, 1841  
 Subspecies: *Herpestes vitticollis vitticollis* Bennett, 1835  
*Herpestes vitticollis inornatus* Pocock, 1941  
 Distribution: Endemic to South Asia  
*Herpestes vitticollis vitticollis* Bennett, 1835  
 Endemic to South Asia  
 India—Karnataka, Kerala, and Tamil Nadu  
 Sri Lanka—Central, Northern, North-Central, North-Western,  
 Sabaragamuwa, Southern and Western Provinces  
*Herpestes vitticollis inornatus* Pocock, 1941  
 Endemic to India, Karnataka  
 Comments: In India, restricted to the Western Ghats

**415. *Herpestes auropunctatus* (Hodgson, 1836)**1836. *Mangusta auropunctata* Hodgson, J. Asiat. Soc. Bengal, 5:235

## Small Indian Mongoose

- Type locality: Nepal  
 Synonyms: *Mangusta auropunctata* Hodgson, 1836  
*Herpestes javanicus auropunctatus* (Hodgson, 1836)  
*Herpestes nepalensis* Gray, 1837  
*Mangusta pallipes* Blyth, 1845  
*Mungos auropunctatus helvus* Ryley, 1914  
 Subspecies: *Herpestes auropunctatus auropunctatus* (Hodgson, 1836)  
*Herpestes auropunctatus pallipes* (Blyth, 1845)  
 Distribution: *Herpestes auropunctatus auropunctatus* (Hodgson, 1836)  
 Endemic to South Asia  
 Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur,  
 Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
 Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan  
 India—Assam, Bihar, Himachal Pradesh, Jammu and Kashmir, Jharkhand,  
 Manipur, Meghalaya, Orissa, Uttar Pradesh, and West Bengal  
 Nepal—Central Nepal  
*Herpestes auropunctatus pallipes* (Blyth, 1845)  
 Afghanistan—Badghis, Farah, Helmand, Herat, Kandahar, Konar,  
 Laghman, Nimroz, Nuristan, Paktika, and Zabol Provinces  
 India—Gujarat, Punjab, and Rajasthan  
 Pakistan—Balochistan, Punjab, and Sindh

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Small Indian Mongoose

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Comments: Ellerman and Morrison-Scott (1951) and Nellis (1989) considered *javanicus* (E. Geoffroy, 1818) and *auropunctatus* (Hodgson, 1836) as distinct based on studies by Chasen (1940). While, Wells (1989), Lekagul and McNeely (1977), Corbet and Hill (1992), and Wozencraft (2005) treated *auropunctatus* (Hodgson, 1836) as subspecies of *javanicus* (E. Geoffroy, 1818). However, based on craniometric (Taylor and Matheson 1999) and molecular studies (Veron et al. 2004, 2007; Agnarsson et al. 2010), we treat the taxa *javanicus* and *auropunctatus* as distinct taxa

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**416. *Herpestes urva* (Hodgson, 1836)**1837. *Gulo urva* Hodgson, Jour. Asiat. Soc. Bengal, 5:238

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Crab-eating Mongoose

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Type locality: “Central and Northern Regions” = Nepal  
 Synonyms: *Gulo urva* Hodgson, 1837  
*Viverra fusca* Gray, 1830 (?)  
*Urva cancrivora* Hodgson, 1837  
 Subspecies: *Herpestes urva urva* (Hodgson, 1836)  
 Distribution: *Herpestes urva urva* (Hodgson, 1836)  
 Bangladesh—Chittagong, Mymensingh, and Sylhet  
 Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan  
 India—Assam, Arunachal Pradesh, Manipur, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Comments: None

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**417. *Herpestes smithii* Gray, 1837**1837. *Herpestes smithii* Gray, Charlesworth’s Mag. Nat. Hist., 1:578

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Ruddy Mongoose

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Type locality: Not known  
 Synonyms: *Herpestes thysanurus* Gray, 1837  
*Herpestes ellioti* Wagner, 1839 (?)  
*Herpestes torquatus* Kelaart, 1852  
*Herpestes rubiginosus* Kelaart, 1852 (not of Wagner, 1841)  
*Herpestes jerdonii* Gray, 1864  
*Herpestes monticolus* Jerdon, 1867  
*Herpestes smithii rusanus* Thomas, 1921  
 Subspecies: *Herpestes smithii smithii* Gray, 1837  
*Herpestes smithii thysanurus* Gray, 1837  
*Herpestes smithii zeylanicus* Thomas, 1921

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Ruddy Mongoose

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- Distribution: Endemic to South Asia  
*Herpestes smithii smithii* Gray, 1837  
 Endemic to India, Andhra Pradesh, Bihar, Chhattisgarh, Delhi, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu, and Uttar Pradesh  
*Herpestes smithii thysanurus* Gray, 1837  
 Endemic to India, Jammu and Kashmir  
*Herpestes smithii zeylanicus* Thomas, 1921  
 Endemic to Sri Lanka, Eastern, Northern, North Central, North Western, Sabaragamuwa, and Western Provinces
- Comments: The taxonomic status of *thysanurus* Wagner, 1839 from Jammu and Kashmir needs to be verified
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**418. *Herpestes fuscus* Waterhouse, 1838**1838. *Herpestes fusca* Waterhouse, Proc. Zool. Soc. London, pp. 55

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Indian Brown Mongoose (Brown Mongoose)

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- Type locality: "Southern India" (Pocock, 1933)
- Synonyms: *Herpestes fusca* Waterhouse, 1838  
*Herpestes flavidens* Kelaart, 1850  
*Herpestes fulvescens* Kelaart, 1851  
*Cynictis maccarthiae* Gray, 1851  
*Herpestes ceylanicus* Nevill, 1887(?)  
*Herpestes flavidens ceylonicus* Thomas, 1924 (for *ceylanicus* Nevill, 1887)  
*Herpestes flavidens phillipsi* Thomas, 1924  
*Herpestes flavidens siccatus* Thomas, 1924
- Subspecies: *Herpestes fuscus fuscus* Waterhouse, 1838  
*Herpestes fuscus flavidens* Kelaart, 1850  
*Herpestes fuscus maccarthiae* (Gray, 1851)  
*Herpestes fuscus siccatus* Thomas, 1924  
*Herpestes fuscus rubidior* Pocock, 1937
- Distribution: Endemic to South Asia.  
*Herpestes fuscus fuscus* Waterhouse, 1838  
 Endemic to India, Karnataka, Kerala, and Tamil Nadu  
*Herpestes fuscus flavidens* Kelaart, 1850  
 Endemic to Sri Lanka, Central, Uva, and Western Provinces  
*Herpestes fuscus maccarthiae* (Gray, 1851)  
 Endemic to Sri Lanka, Northern Province  
*Herpestes fuscus siccatus* Thomas, 1924  
 Endemic to Sri Lanka, Eastern, and Northern Provinces  
*Herpestes fuscus rubidior* Pocock, 1937  
 Endemic to Sri Lanka, Sabaragamuwa, Southern, and Western Provinces
- Comments: In India, restricted to Western Ghats. The taxa, *maccarthiae* Gray, 1851 and *siccatus* Thomas, 1924, had not been sighted since type descriptions, hence their current status needs to be ascertained
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**419. *Herpestes palustris* Ghose, 1965**1965. *Herpestes palustris* Ghose, Proc. Zool. Soc. Calcutta 18(2):174–178

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**Bengal Marsh Mongoose**

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Type locality:	Nalbani, North Salt Lake, 24-Paraganas Dist., West Bengal, India
Synonyms:	<i>Herpestes auropunctatus palustris</i> Ghose, 1965 <i>Herpestes javanicus palustris</i> Ghose, 1965
Subspecies:	None
Distribution:	Endemic to India <i>Herpestes palustris</i> Ghose, 1965 West Bengal
Comments:	Considered as a subspecies of <i>Herpestes javanicus</i> (E. Geoffroy, 1818) (Wozencraft 2005). Considered distinct following Mallick (2009)

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**Family Viverridae Gray, 1821**

All four subfamilies are recognized in the Family Viverridae Gray, 1821 (Agnarsson et al. 2010), of which two subfamilies pertain to South Asia.

**Subfamily Paradoxurinae Gray, 1865**

Represented by six species in four genera in South Asia.

**Genus *Arctictis* Temminck, 1824****Binturong**

A monotypic genus.

**420. *Arctictis binturong* (Raffles, 1821)**1821. *Viverra? binturong* Raffles, Trans. Linn. Soc. London, 13:253

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**Binturong (Bearcat)**

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Type locality:	Malacca
Synonyms:	<i>Viverra? binturong</i> Raffles, 1821 <i>Paradoxurus albifrons</i> F. Cuvier, 1822
Subspecies:	<i>Arctictis binturong albifrons</i> (F. Cuvier, 1822)
Distribution:	<i>Arctictis binturong albifrons</i> (F. Cuvier, 1822) Bangladesh—Chittagong and Sylhet Bhutan—Central, East, and West Bhutan India—Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura Nepal—Central and Eastern Nepal (southern parts of)
Comments:	None

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**Genus *Arctogalidia* Merriam, 1897**

**Small-toothed Palm Civet**

A monotypic genus.

**421. *Arctogalidia trivirgata* (Gray, 1832)**

1832. *Paradoxurus trivirgatus* Gray, Proc. Zool. Soc. London, p. 68

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Small-toothed Palm Civet

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Type locality: “Java, Buitenzorg”, Indonesia (Restricted by Jentink, 1887)

Synonyms: *Paradoxurus trivirgatus* Gray, 1832

*Arctogalidia millsii* Wroughton, 1921

Subspecies: *Arctogalidia trivirgata millsii* Wroughton, 1921

Distribution: *Arctogalidia trivirgata millsii* Wroughton, 1921

Bangladesh—Sylhet

India—West Bengal, Assam, and Nagaland

Comments: Historic records, no recent collections or sighting reported

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**Genus *Paguma* Gray, 1831**

**Masked Palm Civet**

A monotypic genus.

**422. *Paguma larvata* (Hamilton-Smith, 1827)**

1827. *Gulo larvatus* Hamilton-Smith, In Griffith et al., Anim. Kingdom, 2:281

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Masked Palm Civet

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Type locality: Not known (*see* Pocock 1934b)

Synonyms: *Gulo larvatus* Hamilton-Smith, 1827

*Paradoxurus grayi* Bennett, 1835

*Paradoxurus nipalensis* Hodgson, 1836

*Paradoxurus tytleri* Tytler, 1864

*Paguma grayi wroughtoni* Schwarz, 1913

Subspecies: *Paguma larvata grayi* (Bennett, 1835)

*Paguma larvata tytleri* (Tytleri, 1864)

*Paguma larvata wroughtoni* Schwarz, 1913

*Paguma larvata neglecta* Pocock, 1934

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## Masked Palm Civet

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Distribution:	<i>Paguma larvata grayi</i> (Bennett, 1835) India—Uttarakhand Nepal—Central, Eastern, and Western Nepal (in the Himalayas)
	<i>Paguma larvata tytleri</i> (Tytleri, 1864) Endemic to India, South Andaman Island.
	<i>Paguma larvata wroughtoni</i> Schwarz, 1913 Endemic to South Asia India—Himachal Pradesh, Jammu and Kashmir, and Uttarakhand Pakistan—Punjab
	<i>Paguma larvata neglecta</i> Pocock, 1934 Bangladesh—Sylhet Bhutan—West Bhutan India—Assam, Arunachal Pradesh, Manipur, Meghalaya, Nagaland, Sikkim, and Tripura Nepal—Central, Eastern, Mid-Western, and Western Nepal (in the Himalayas)
Comments:	From Pakistan this species is reported from near Murree, northern Punjab (Roberts 1997)

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**Genus *Paradoxurus* E. Cuvier, 1821****Palm Civet**

Includes three species in South Asia.

**423. *Paradoxurus hermaphroditus* (Pallas, 1777)**1777. *Viverra hermaphrodita* Pallas, *In Schreber Die Säugethiere*, 3(25):426

## Common Palm Civet (Toddy Cat)

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Type locality:	Uncertain. Corbet and Hill (1992) listed “India?”
Synonyms:	<i>Paradoxurus zeylonensis</i> (Pallas, 1777) <i>Viverra hermaphrodita</i> Pallas, 1777 <i>Viverra zeylonensis</i> Pallas, 1777 <i>Viverra zeylonica</i> Gmelin, 1788 <i>Paradoxurus prehensilis</i> Desmarest, 1820 <i>Viverra bondar</i> Desmarest, 1820 <i>Viverra nigra</i> Desmarest, 1820 (Not of Peale & Beauvois, 1796) <i>Paradoxurus typus</i> F. Cuvier & Geoffroy, 1821 <i>Paradoxurus leucopus</i> Ogilby, 1829 <i>Paradoxurus crossi</i> Gray, 1832 <i>Paradoxurus pallasi</i> Gray, 1832

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## Common Palm Civet (Toddy Cat)

- Paradoxurus pennantii* Gray, 1832  
*Paradoxurus hirsutus* Hodgson, 1836  
*Paradoxurus felinus* Wagner, 1841 (Composite, partly *hermaphroditus* & partly *pallasi*)  
*Paradoxurus quadriscriptus* Horsfield, 1855  
*Paradoxurus strictus* Horsfield, 1855  
*Paradoxurus nigrifrons* Gray, 1864  
*Paradoxurus niger* Blanford, 1885  
*Paradoxurus nictitans* Taylor, 1891  
*Paradoxurus vicinus* Schwarz, 1910  
*Paradoxurus hermaphroditus laneus* Pocock, 1934
- Subspecies: *Paradoxurus hermaphroditus hermaphroditus* (Pallas, 1777)  
*Paradoxurus hermaphroditus bondar* (Desmarest, 1820)  
*Paradoxurus hermaphroditus pallasi* Gray, 1832  
*Paradoxurus hermaphroditus nictitans* Taylor, 1891  
*Paradoxurus hermaphroditus scindiae* Pocock, 1934  
*Paradoxurus hermaphroditus vellerosus* Pocock, 1934
- Distribution: *Paradoxurus hermaphroditus hermaphroditus* (Pallas, 1777)  
 Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet (but nowhere common)  
 India—Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, and West Bengal (southern region)  
 Sri Lanka—Throughout (but nowhere common)  
*Paradoxurus hermaphroditus bondar* (Desmarest, 1820)  
 Endemic to South Asia  
 India—Bihar, Haryana, Himachal Pradesh, Jharkhand, Punjab, Rajasthan (parts of), Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central and Eastern Nepal  
*Paradoxurus hermaphroditus pallasi* Gray, 1832  
 India—Assam, Sikkim, and West Bengal  
 Nepal—Eastern Nepal  
*Paradoxurus hermaphroditus nictitans* Taylor, 1891  
 Endemic to India, Orissa  
*Paradoxurus hermaphroditus scindiae* Pocock, 1934  
 Endemic to India, Madhya Pradesh  
*Paradoxurus hermaphroditus vellerosus* Pocock, 1934  
 Endemic to South Asia  
 India—Jammu and Kashmir  
 Pakistan—Sindh and Punjab
- Comments: May possibly also occur in Bhutan. Groves et al. (2009) opined that the nomen *Paradoxurus zeylonensis* (Pallas, 1777) given to Sri Lankan Golden Palm Civet probably does not apply to a Golden Palm Civet at all, and assigned the Sri Lankan forms to three taxa, namely, *Paradoxurus aureus* F. Cuvier, 1822, *Paradoxurus montanus* Kelaart, 1852, and *Paradoxurus stenocephalus* Groves et al. 2009 and synonymized *Paradoxurus zeylonensis* (Pallas, 1777) with this taxon

**424. *Paradoxurus aureus* F. Cuvier, 1822**1822. *Paradoxurus aureus* F. Cuvier, Mem. Mus. H. N. Paris, 9:48, pl. 4

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**Golden Wet-zone Palm Civet**

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- Type locality: Ceylon (=Sri Lanka)  
 Synonyms: None  
 Subspecies: None  
 Distribution: Endemic to Sri Lanka  
*Paradoxurus aureus* F. Cuvier, 1822  
 Central Province  
 Comments: See comments under *Paradoxurus hermaphroditus* (Pallas, 1777) and refer to Groves et al. (2009) for notes on its taxonomic status
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**425. *Paradoxurus montanus* Kelaart, 1852**1852. *Paradoxurus montanus* Kelaart, Prodr. Faun. Zeylan. 39–40

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**Sri Lankan Brown Palm Civet**

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- Type locality: Newara Eliya, Ceylon (=Nuwara Eliya, Sri Lanka)  
 Synonyms: *Paradoxurus fuscus* with *var. fuscus* or *montanus* Kelaart, 1852  
 Subspecies: None  
 Distribution: Endemic to Sri Lanka  
*Paradoxurus montanus* Kelaart, 1852  
 Central Province  
 Comments: See comments under *Paradoxurus hermaphroditus* (Pallas, 1777) and refer to Groves et al. (2009) for notes on its taxonomic status
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**426. *Paradoxurus jerdoni* Blanford, 1885**1885. *Paradoxurus jerdoni* Blanford, Proc. Zool. Soc. London, 613, 802

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**Jerdon's Palm Civet**

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- Type locality: Kodaikanal, Palani Hills, Tamil Nadu, India  
 Synonyms: None  
 Subspecies: *Paradoxurus jerdoni jerdoni* Blanford, 1885  
*Paradoxurus jerdoni caniscus* Pocock, 1933  
 Distribution: Endemic to India  
*Paradoxurus jerdoni jerdoni* Blanford, 1885  
 Kerala and Tamil Nadu (in Palani Hills)  
*Paradoxurus jerdoni caniscus* Pocock, 1933  
 Karnataka (Coorg) and Tamil Nadu (in Nilgiri Hills)  
 Comments: Restricted to the Western Ghats from south of Coorg to Palani Hills. See Ashraf et al. (1993), Mudappa (1998), and Rajamani et al. (2002) for further details
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**427. *Paradoxurus stenocephalus* Groves et al. 2009**

2009. *Paradoxurus stenocephalus* Groves, Rajapaksha and Manemandra-Arachchi, Zool. J. Linn. Soc., 155, 238-251. With 13 figures

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**Golden Dry-Zone Palm Civet**

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Type locality:	Panama Sea Coast, Eastern Province, Sri Lanka
Synonyms:	None
Subspecies:	None
Distribution:	Endemic to Sri Lanka <i>Paradoxurus stenocephalus</i> Groves et al. 2009 Central and Eastern Province
Comments:	See comments under <i>Paradoxurus hermaphroditus</i> (Pallas, 1777) and refer to Groves et al. (2009) for its description

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**Subfamily Viverrinae Gray, 1821**

Includes three species in two genera in South Asia.

**Genus *Viverra* Linnaeus, 1758****Civets****428. *Viverra zibetha* Linnaeus, 1758**

1758. *Viverra zibetha* Linnaeus, Syst. Nat. 10th ed., 1:44

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**Large Indian Civet**

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Type locality:	“Indiis” (Restricted to Bengal by Thomas 1911), India
Synonyms:	<i>Viverra undulata</i> Gray, 1830 <i>Viverra orientalis</i> or <i>melanurus</i> Hodgson, 1842 ( <i>Viverra</i> ) <i>civettoides</i> Hodgson, 1842
Subspecies:	None
Distribution:	<i>Viverra zibetha</i> Linnaeus, 1758 Bangladesh—Chittagong, Mymensingh, Noakhali, Rangpur, and Sylhet India—Assam, Arunachal Pradesh, Himachal Pradesh, Jharkhand, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, and West Bengal Nepal—Central and Eastern Nepal
Comments:	May possibly also occur in Bhutan

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**429. *Viverra civettina* Blyth, 1862**

1862. *Viverra civettina* Blyth, Jour. Asiat. Soc. Bengal, 31:332

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**Malabar Large Spotted Civet**

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Type locality:	“Southern Malabar” (Restricted to Travancore by Pocock 1933), India
Synonyms:	<i>Viverra megaspila civettina</i> Blyth, 1862
Subspecies:	None
Distribution:	Endemic to India <i>Viverra civettina</i> Blyth, 1862 Karnataka and Kerala (in Western Ghats)

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**Malabar Large Spotted Civet**

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Comments: Ellerman and Morrison-Scott (1951) considered this taxon as subspecies of *Viverra megaspila* Blyth, 1862, while Lindsay (1928), Pocock (1941), Wozencraft (1984, 1989b), and Corbet and Hill (1992) treated it as species. Distribution restricted to the Western Ghats, India. Between 1950 and 1990, only two records of this species existed (Karanth 1986; Kurup 1989b); later this species was rediscovered and freshly caught skins were obtained near Elayur, Kerala (Kurup 1989b) and near Nilambur, Kerala (Ashraf et al. 1993). Rai and Kumar (1993) report of possible occurrence of this species in Karnataka

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**Genus *Viverricula* Hodgson, 1838****Indian Civet**

Monotypic genus.

**430. *Viverricula indica* (E. Geoffroy Saint-Hilaire, 1803)**

1803. *Viverra indica* E. Geoffroy Saint-Hilaire, Cat. Mamm. Mus. Nat. Hist. Nat., p. 113

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**Small Indian Civet**

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Type locality: “Inde”=India

Synonyms: *Viverra indica* Desmarest, 1817 or  
*Viverra indica* E. Geoffroy Saint-Hilaire, 1817  
*Viverra bengalensis* Gray and Hardwicke, 1830  
*Viverricula malaccensis deserti* Bonhote, 1898

Subspecies: *Viverricula indica indica* (E. Geoffroy Saint-Hilaire, 1803)  
*Viverricula indica deserti* Bonhote, 1898  
*Viverricula indica baptistae* Pocock, 1933  
*Viverricula indica mayori* Pocock, 1933  
*Viverricula indica wellsi* Pocock, 1933

Distribution: *Viverricula indica indica* (E. Geoffroy Saint-Hilaire, 1803)  
 Bangladesh—Chittagong, Mymensingh, Noakhali, Rangpur, and Sylhet  
 India—Andhra Pradesh, Assam, Arunachal Pradesh (parts of), Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, and West Bengal  
 Pakistan—Punjab and Sindh  
*Viverricula indica deserti* Bonhote, 1898  
 Endemic to South Asia  
 India—Rajasthan  
 Pakistan—Sindh (possibly)

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 Small Indian Civet
 

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*Viverricula indica baptistae* Pocock, 1933

Endemic to South Asia

Bhutan—Central (parts of), East (parts of), and West (parts of) Bhutan

India—Assam (parts of), Arunachal Pradesh (parts of), and West Bengal (parts of)

Nepal—Central, Eastern, Mid-Western, and Western Nepal

*Viverricula indica mayori* Pocock, 1933

Endemic to Sri Lanka, Central, Eastern, North Central, North Western, Sabargamuwa, Southern, and Uva Provinces

*Viverricula indica wellsi* Pocock, 1933

Endemic to India, Himachal Pradesh, and Uttarakhand

Comments: The presence of this species in Afghanistan (*see* Wozencraft 2005) needs confirmation. It has not been reported from Afghanistan by Roberts (1997) and Habibi (2003)

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## Order Perissodactyla Owen, 1848

Includes two families in South Asia (Grubb 2005a). Phylogenetic relationships between the extant families and species have been worked out by Steiner and Ryder (2011).

### Family Equidae Gray, 1821

#### Genus *Equus* Linnaeus, 1758

#### Horses and Asses

Two species in South Asia.

#### 431. *Equus hemionus* Pallas, 1775

1775. *Equus hemionus* Pallas, Nova Comm. Imp. Acad. Sci. Petrop., 19:394

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#### Asiatic Wild Ass (Onager, Asian Wild Ass)

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- Type locality: Terai-Nor (50°N, 115°E), Dauria, S. Chitinsk, Obl., Transbaikalia, Russia
- Synonyms: *Equus onager khur* Lesson, 1827  
*Asinus indicus* Sclater, 1862 (*nomen nudum*)  
*Equus indicus* George, 1869  
*Microhippus hemionus blanfordi* Pocock, 1947
- Subspecies: *Equus hemionus khur* Lesson, 1827  
*Equus hemionus blanfordi* (Pocock, 1947)
- Distribution: *Equus hemionus khur* Lesson, 1827  
 Endemic to South Asia  
 India—Gujarat  
 Pakistan—extinct  
*Equus hemionus blanfordi* (Pocock, 1947) Extinct  
 Afghanistan—Kandahar Province  
 Pakistan—Balochistan
- Comments: Grubb (1993a) treated the taxon *hemionus khur* Lesson, 1827 under *Equus onager* Boddaert, 1785, while Groves (2003) treated it as a distinct species. *Equus hemionus khur* Lesson, 1827 has become extinct in Pakistan where it was known from Sindh region bordering Gujarat, India. Corbet and Hill (1992) and Groves (2003) opine that *Equus hemionus blanfordi* (Pocock, 1947) is extinct
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#### 432. *Equus kiang* Moorcroft, 1841

1841. *Equus kiang* Moorcroft, Travels in the Himalayan Provinces, 1:312

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#### Kiang (Tibetan Wild Ass)

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- Type locality: Eastern parts of Ladakh, Jammu and Kashmir, India
- Synonyms: *Equus hemionus kiang* Moorcroft, 1841  
*Asinus equioides* Hodgson, 1842  
*Asinus polyodon* Hodgson, 1847  
*Asinus kyang* Kinloch, 1861
- Subspecies: *Equus kiang kiang* Moorcroft, 1841  
*Equus kiang polyodon* (Hodgson, 1847)
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**Kiang (Tibetan Wild Ass)**

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- Distribution: *Equus kiang kiang* Moorcroft, 1841  
 India—Jammu and Kashmir (in Ladakh), Khunjreb National Park, Gilgit  
 (Disputed Kashmir) (St-Louis and Côté 2009)  
*Equus kiang polyodon* (Hodgson, 1847)  
 India—Sikkim  
 Nepal—Eastern and Far-Western Nepal (in the Himalayas)
- Comments: Earlier included under *Equus hemionus* Pallas, 1775 (Ellerman and Morrison-Scott 1951; Schlawe 1986) from which it differs in cranial profile (Bennett 1980; Groves and Mazák 1967; Groves 1986, 2003). This taxon may probably occur in Bhutan
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**Family Rhinocerotidae Gray, 1821**

Three species in two genera. Molecular phylogeny studies show that *Dicerorhinus sumatrensis* is closely related to *Rhinoceros unicornis* and *Rhinoceros sondaicus* (Tougaard et al. 2001).

**Genus *Dicerorhinus* Gloger, 1841****Asian Two-horned Rhinoceros**

A monotypic genus. Earlier named *Didermocerus* Brookes, 1828 (Ellerman and Morrison-Scott 1951). The present generic name *Dicerorhinus* Gloger, 1841 is accepted vide International Commission on Zoological Nomenclature (1977).

**433. *Dicerorhinus sumatrensis* (Fischer, 1814)**1814. *Rhinoceros sumatrensis* Fischer, Zoogn., 3:301

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**Sumatran Rhinoceros (Asian Two-horned Rhinoceros)**

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- Type locality: Bencoolen Dist., South Sumatra
- Synonyms: *Rhinoceros sumatrensis* Fischer, 1814  
*Didermocerus sumatrensis* (Fischer, 1814)  
*Rhinoceros lasiotis* Buckland, 1872  
*Didermocerus sumatrensis lasiotis* (Buckland, 1872)
- Subspecies: *Dicerorhinus sumatrensis lasiotis* (Buckland, 1872)
- Distribution: *Dicerorhinus sumatrensis lasiotis* (Buckland, 1872)  
 Bangladesh—Extinct  
 Bhutan—Extinct  
 India—Assam, Manipur and Nagaland
- Comments: Although there are no recent reports of this species in South Asia, Choudhury (1997) opined that it apparently still occurs in Manipur and Nagaland. Revised by Groves (1967c) and reviewed by Groves and Kurt (1972)
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**Genus *Rhinoceros* Linnaeus, 1758**

**Asian One-horned Rhinoceros**

Two species in South Asia of which one is extinct in the region.

**434. *Rhinoceros unicornis* Linnaeus, 1758**

1758. *Rhinoceros unicornis* Linnaeus, Syst. Nat. 10th ed., 1:56

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Great Indian Rhinoceros (Great One-horned Rhinoceros, Indian One-horned Rhinoceros)

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- Type locality: Probably the sub-Himalayan terai of Assam, India
- Synonyms: *Rhinoceros indicus* G. Cuvier, 1817  
*Rhinoceros asiaticus* Blumenbach, 1830  
*Rhinoceros stenocephalus* Gray, 1867  
*Rhinoceros jamrachi* Scatter, 1876 (invalid *nomen*)
- Subspecies: None
- Distribution: Endemic to South Asia  
*Rhinoceros unicornis* Linnaeus, 1758  
 Afghanistan—Extinct  
 Bangladesh—Extinct  
 Bhutan—East Bhutan  
 India—Assam, Uttar Pradesh, and West Bengal  
 Nepal—Mid-Western Nepal  
 Pakistan—Extinct
- Comments: The nomen *jamrachi* Scatter, 1876 is invalid as it is based on an unpublished document (Rookmaaker 1977; Laurie et al. 1983; Groves 2003). Groves (1993a, 2003) felt that the Assamese and Nepalese populations differ cranially, and suggest taxonomic studies. Historically, occurred in Afghanistan and Pakistan too (Rookmaaker 2000)
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**435. *Rhinoceros sondaicus* Desmarest, 1822**

1822. *Rhinoceros sondaicus* Desmarest, Mammalogie, 2:399

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Javan Rhinoceros (Lesser One-horned Rhinoceros, Javan One-horned Rhinoceros)

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- Type locality: Java
- Synonyms: *Rhinoceros inermis* Lesson, 1840
- Subspecies: *Rhinoceros sondaicus inermis* Lesson, 1840
- Distribution: Extinct from South Asia  
*Rhinoceros sondaicus inermis* Lesson, 1840  
 Extinct in South Asia  
 Bangladesh—Extinct  
 Bhutan—Extinct  
 India—Extinct
- Comments: Groves and Chakraborty (1983) and Groves (1993a, 2003) opine that *Rhinoceros sondaicus inermis* Lesson, 1840 has become extinct. This taxon has been revised by Groves (1967)
-

## Order Artiodactyla Owen, 1848

Represented by 33 species in five families in South Asia (Grubb 2005b). Presently classified under Superorder Cetartiodactyla Montgelard, Catzeflis and Douzery (1999) as Infraorder (See Price et al. 2005; Geisler et al. 2007; Thewissen et al. 2007; Agnarsson and May-Collado 2008; Zhou et al. 2011). Traditionally included three major lineages, namely, Suiformes (pigs, peccaries, and hippopotamuses), Tylopoda (camels and llamas), and Ruminantia (bovids, deer, tragulids, and giraffes) (Simpson 1945). The order Artiodactyla includes species belonging to the families Suidae, Tragulidae, Moschidae, Cervidae, and Bovidae.

### Family Suidae Gray, 1821

Represented by two genera *Porcula* Hodgson, 1847 and *Sus* Linnaeus, 1758 for south Asia.

### Genus *Porcula* Hodgson, 1847

#### Pygmy Hog

A monotypic genus (Funk et al. 2007).

#### **436. *Porcula salvania* Hodgson, 1847**

1847. *Porcula salvania* Hodgson, J. Asiat. Soc. Bengal, 16:423

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#### Pygmy Hog

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Type locality:	Sikkim Terai, India
Synonyms:	<i>Sus salvanius</i> (Hodgson, 1847) <i>Sus lilliputensis</i> Gray, 1863
Subspecies:	None
Distribution:	Endemic to South Asia <i>Porcula salvania</i> (Hodgson, 1847) Bhutan—East Bhutan India—Assam, Sikkim, and West Bengal
Comments:	The taxon <i>Porcula</i> Hodgson, 1847 was earlier considered as subgenus under genus <i>Sus</i> Linnaeus, 1758 due to its unique morphological traits (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Grubb 2005b). However, recent molecular studies suggest that the taxon <i>Porcula</i> is distinct from <i>Sus</i> and it is to be recognized as a distinct genus from genus <i>Sus</i> (Funk et al. 2007). Presently its presence is confirmed in and around Manas National Park in North-western Assam (Narayan and Deka 2002)

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## Genus *Sus* Linnaeus, 1758

### Boars

Represented by one species in South Asia.

#### 437. *Sus scrofa* Linnaeus, 1758

1758. *Sus scrofa* Linnaeus, Syst. Nat. 10th ed., 1:49

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#### Wild Boar (Eurasian Wild Pig)

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Type locality: Germany

Synonyms: *Sus cristatus* Wagner, 1839  
*Sus aper* var. *aipomus* Hodgson, 1842  
*Sus aper* var. *isonotus* Hodgson, 1842  
*Sus indicus* Gray, 1843  
*Sus affinis* Gray, 1847  
*Sus andamanensis* Blyth, 1858  
*Sus scrofa andamanensis* Blyth, 1858  
*Sus zeylonicus* Blyth, 1860  
*Sus bengalensis* Blyth, 1860  
*Sus cristatus typicus* Lydekker, 1900  
*Sus nicobaricus* Miller, 1902  
*Sus scrofa nicobaricus* Miller, 1902

Subspecies: *Sus scrofa vittatus* Boie, 1828  
*Sus scrofa cristatus* Wagner, 1839  
*Sus scrofa davidi* Groves, 1981

Distribution: *Sus scrofa vittatus* Boie, 1828  
 India—Andaman and Nicobar Islands  
*Sus scrofa cristatus* Wagner, 1839  
 Afghanistan—Badakhshan, Badghis, Balkh, Faryab, Helmand, Kandahar, Konar, Konduz, Nimruz, Nuristan, and Takhar Provinces  
 Bangladesh—Barisal, Bogra, Chittagong, Comilla, Dinajpur, Faridpur, Khulna, Mymensingh, Noakhali, Pabna, Rajshahi, Rangpur, and Sylhet  
 Bhutan—Central, East and West Bhutan (in the terai region)  
 India—Widely distributed  
 Sri Lanka—Widely distributed  
 Nepal—Widely distributed in terai region  
*Sus scrofa davidi* Groves, 1981  
 Endemic to South Asia  
 India—Gujarat, Maharashtra and Rajasthan  
 Pakistan—Sindh

Comments: Reviewed by Genov (1999) and Groves (1981, 2003). Following Grubb (2005b), who opines that *andamanensis* Blyth, 1858 and *nicobaricus* Miller, 1902 are based on domestic or feral populations of *Sus scrofa vittatus* Boie, 1828, we provisionally assign populations from Andaman and Nicobar Islands to *Sus scrofa vittatus* Boie, 1828

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### Family Tragulidae Milne-Edwards, 1864

Basal ruminants (Webb and Taylor 1980; Bouvrain and Geraads 1985; Janis and Scott 1988; Hassanin and Douzery 2003).

### Genus *Moschiola* Hodgson, 1843

#### Chevrotains

Earlier treated as subgenus of *Tragulus* Brisson, 1762. It has been elevated to generic rank by Groves and Grubb (1987) following Flerov (1931). Groves and Meijaard (2005) reviewed this genus and proposed three distinct species from South Asia.

#### 438. *Moschiola meminna* (Erxleben, 1777)

1777. *Moschus meminna* Erxleben, Syst. Regn. Anim. Mamm., 1:322

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#### White Spotted Chevrotain

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- Type locality: Sri Lanka, Wariyapola, 7°37'N, 80°13'E, 416 m, North Central Province, Sri Lanka (restricted by Groves and Meijaard 2005)
- Synonyms: *Moschus meminna* Erxleben, 1777  
= *Tragulus meminna* Erxleben, 1777
- Subspecies: None
- Distribution: Endemic to Sri Lanka  
*Moschiola meminna* (Erxleben, 1777)  
Central, Eastern, North Central, and Western Province
- Comments: Restricted to the Dry Zone regions of Sri Lanka (Phillips 1984; Groves and Meijaard 2005)
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#### 439. *Moschiola indica* (Gray, 1843)

1843. *Meminna indica* Gray, List. Mamm. B. M. 172

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#### Indian Chevrotain (Indian Mousedeer)

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- Type locality: Eastern Ghats, India
- Synonyms: *Meminna indica* Gray, 1843
- Subspecies: None
- Distribution: Endemic to South Asia  
*Moschiola indica* (Gray, 1843)  
India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, and Tamil Nadu  
Nepal—Central, Far-Western, Mid-Western, and Western Nepal (only in the foothills)
- Comments: Some authorities did not include Nepal in its range, while Mitchell and Punzo (1976) reported its presence in Nepal. See Baral et al. (2009) for current distribution in Nepal. See Champion (1929) for remarks on its distribution
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**440. *Moschiola kathygre* Groves and Meijaard, 2005**2005. *Moschiola kathygre* Groves and Meijaard, Raffles Bull. Zool., suppl. 12:413–421

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**Yellow-striped Chevrotain**

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Type locality: Kumbalagamuwa, 7°06'N, 80°51'E, 747 m (=2,454 ft), Kandy District, Central Province, Sri Lanka

Synonyms: None

Subspecies: None

Distribution: Endemic to Sri Lanka

*Moschiola kathygre* Groves and Meijaard, 2005

Central, Sabaragamuwa, Southern, Uva, and Western Province

Comments: Restricted to the Wet Zone regions of Sri Lanka (Groves and Meijaard 2005)

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**Family Moschidae Gray, 1821**

Earlier included as subfamily of the family Cervidae (Ellerman and Morrison-Scott 1951). Flerov (1960) separated and treated it as a distinct family, a trend that was accepted by Webb and Taylor (1980), Groves and Grubb (1987), Janis and Scott (1987), and Hassanin and Douzery (2003).

**Genus *Moschus* Linnaeus, 1758****Musk Deers****441. *Moschus chrysogaster* Hodgson, 1839**1839. *Moschus chrysogaster* Hodgson, J. Asiat. Soc. Bengal, 8:203

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**Alpine Musk Deer (Golden-bellied Musk Deer)**

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Type locality: Nepal

Synonyms: None

Subspecies: *Moschus chrysogaster chrysogaster* Hodgson, 1839*Moschus chrysogaster sifanicus* Büchner, 1891Distribution: *Moschus chrysogaster chrysogaster* Hodgson, 1839

Bhutan—Central and West Bhutan

India—Sikkim

Nepal—East Nepal

*Moschus chrysogaster sifanicus* Büchner, 1891

India—Jammu and Kashmir

Comments: The taxa *chrysogaster* Hodgson, 1839 and *leucogaster* Hodgson, 1839 were earlier included under *Moschus moschiferus* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951), but now are considered distinct (Flerov 1960; Gao 1963; Groves 1976; Grubb 1982; Corbet and Hill 1992). Inclusion of *sifanicus* Büchner, 1891 from India is following Groves (1980)

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**442. *Moschus leucogaster* Hodgson, 1839**1839. *Moschus leucogaster* Hodgson, J. Asiat. Soc. Bengal, 8:203

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White-bellied Musk Deer (Himalayan Musk Deer)

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- Type locality: Nepal  
 Synonyms: *Moschus saturatus* Hodgson, 1839  
*Moschus cacharensis* Lydekker, 1915 (*nomen nudum*)  
 Subspecies: None  
 Distribution: *Moschus leucogaster* Hodgson, 1839  
 Bhutan—Central and West Bhutan  
 India—Sikkim  
 Nepal—Eastern Nepal  
 Comments: Earlier treated as a subspecies of *Moschus chrysogaster* Hodgson, 1839 (Grubb 1990), presently considered distinct based on craniometric studies (Groves and Grubb 1987; Corbet and Hill 1992; Groves et al. 1995)
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**443. *Moschus fuscus* Li, 1981**1981. *Moschus fuscus* Li, Zool. Res., 2:159

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Dwarf Musk Deer (Black Musk Deer)

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- Type locality: Bapo, Gongshan-Xian, Yunnan, China  
 Synonyms: None  
 Subspecies: None  
 Distribution: *Moschus fuscus* Li, 1981  
 Bhutan—Central and West Bhutan  
 India—Assam, Sikkim and West Bengal (in the Himalayan foothills)  
 Nepal—Eastern Province  
 Comments: Earlier treated as subspecies of *Moschus chrysogaster* Hodgson, 1839 (Gao 1985), presently treated distinct (Grubb 2005b)
- 

**444. *Moschus cupreus* Grubb, 1982**1982. *Moschus cupreus* Grubb, Saugetier. Mitt., 30:133

- Type locality: “Kashmir” (no exact locality)  
 Name: Kashmir Musk Deer  
 Synonyms: None  
 Subspecies: None  
 Distribution: Endemic to South Asia  
*Moschus cupreus* Grubb, 1982  
 Afghanistan—Badakhshan and Nuristan Provinces  
 India—Jammu and Kashmir (including disputed Kashmir)  
 Pakistan—Khyber Pakhtunkhwa  
 Comments: Earlier as subspecies of *Moschus chrysogaster* Hodgson, 1839 (Grubb 1982, 1993b), later considered distinct (Groves et al. 1995; Grubb 2005b)
-

## Family Cervidae Goldfuss, 1820

### Deers

Includes the genera *Axis* H. Smith, 1827, *Cervus* Linnaeus, 1758, *Rucervus* Hodgson, 1838 and *Rusa* H. Smith, 1827. All species belong to subfamily Cervinae Goldfuss, 1820. Earlier the genus *Muntiacus* Rafinesque, 1815 was included under subfamily Muntiacini Pocock, 1923 (Pocock 1923b; Haltenorth 1963), presently it is treated as a tribe under subfamily Cervinae Goldfuss, 1820 (Groves and Grubb 1987; Grubb 2000; Kraus and Miyamoto 1991). See Gilbert et al. (2006), MacDonald (2006), Agnarsson and May-Collado (2008) for subfamily level classification.

### Genus *Axis* H. Smith, 1827

#### Spotted Deers

Earlier treated as a subgenus of *Cervus* (Ellerman and Morrison-Scott 1951), presently upgraded to generic level (Grubb 1990; Groves and Grubb 1987). Earlier included forms listed under subgenus *Hyelaphus* Sundevall, 1846; see comments under genus *Hyelaphus*.

#### 445. *Axis axis* (Erxleben, 1777)

1792. *Cervus axis* Erxleben, Syst. Regn. Anim., 1:312

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#### Chital (Indian Spotted Deer)

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Type locality:	Banks of Ganges, Bihar, India
Synonyms:	<i>Cervus axis</i> Erxleben, 1777
	<i>Cervus axis maculatus</i> Kerr, 1792
	<i>Cervus axis</i> var. <i>indicus</i> Fischer, 1829
	<i>Cervus axis</i> var. <i>ceylonensis</i> Fischer, 1829
	<i>Cervus nudipalpebra</i> Ogilby, 1831
	<i>Axis major</i> Hodgson, 1842
	<i>Axis minor</i> Hodgson, 1842
	<i>Cervus (Rusa) axis zeylanicus</i> Lydekker, 1905
Subspecies:	None
Distribution:	Endemic to South Asia
	<i>Axis axis</i> (Erxleben, 1777)
	Bangladesh—Barisal and Khulna
	Bhutan—Central Bhutan (in the terai region bordering India)
	India—Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat (parts of), Haryana, Himachal Pradesh (foothills of Himalayas), Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan (parts of), Tamil Nadu, Uttarakhand (plains), Uttar Pradesh, and West Bengal
	Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal (in the terai regions)
	Sri Lanka—Central, Eastern, Northern, North Central, North Western, Sabargamuwa, Southern, Uva, and Western Provinces
Comments:	Belongs to subgenus <i>Axis</i> H. Smith, 1827. In Bangladesh, once widespread, now restricted to Sunderbans

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## Genus *Hyelaphus* Sundevall, 1846

### Hog Deers

Earlier treated as a subgenus of *Cervus* (Ellerman and Morrison-Scott 1951) or *Axis* Smith, 1827 (Grubb 1990; Groves and Grubb 1987). Currently recognized as a distinct genus (Meijaard and Groves 2004; Pitra et al. 2004).

#### 446. *Hyelaphus porcinus* (Zimmermann, 1780)

1780. *Cervus porcinus* Zimmermann, Geogr. Gesch. 2:131

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#### Hog-Deer

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- Type locality: Bengal
- Synonyms: *Cervus porcinus* Zimmermann, 1780  
*Axis porcinus* (Zimmermann, 1780)  
*Cervus porcinus* Schreber, 1784  
*Cervus pumilio* H. Smith, 1827  
*Axis oryzus* Kelaart, 1852  
*Cervus minor* Sclater, 1883 (not of Hodgson, 1842)
- Subspecies: None
- Distribution: *Hyelaphus porcinus* (Zimmermann, 1780)  
 Bangladesh—Barisal, Khulna, and Sylhet  
 Bhutan—East Bhutan (in the terai region bordering India)  
 India—Arunachal Pradesh, Assam, Bihar, Himachal Pradesh (eastern parts), Manipur, Mizoram, Sikkim, Uttarakhand, Uttar Pradesh, and West Bengal (foothills of Himalayas)  
 Nepal—Eastern, Far-Western, Central, Mid-Western, Western Nepal (only in grassy plains on foothills of Himalayas)  
 Pakistan—Punjab and Sindh
- Comments: This taxon has been introduced in the past in Sri Lanka and also in Goa, India. The Sri Lankan population has been considered distinct species by Kelaart (1852) and as a distinct race by Pocock (1943b). The Sri Lankan population is considered as “introduced” (Phillips 1984), though there are no records available. Khan (2004) reports its presence in Bangladesh albeit in small numbers
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## Genus *Cervus* Linnaeus, 1758

### Deers

Includes one species in South Asia. Earlier included forms presently listed under genus *Rucervus* Hodgson, 1838 and *Rusa* H. Smith, 1827.

**447. *Cervus elaphus* Linnaeus, 1758**1758. *Cervus elaphus* Linnaeus, Syst. Nat. 10th ed. 1:67

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**Red Deer**

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- Type locality: Southern Sweden
- Synonyms: *Cervus wallichii* G. Cuvier, 1823  
*Cervus affinis* Hodgson, 1841  
*Cervus hanglu* Wagner, 1844  
*Cervus casperianus* Gray, 1847  
*Cervus cashmerianus* Adams, 1859  
*Cervus cashmeirianus* Falconer, 1868  
*Cervus cashmirianus* Fitzinger, 1874  
*Cervus cashmirianus yarkandensis* Blanford, 1892  
*Cervus bactrianus* Lydekker, 1900  
*Cervus elaphus bactrianus* Lydekker, 1900
- Subspecies: *Cervus elaphus wallichii* G. Cuvier, 1823  
*Cervus elaphus hanglu* Wagner, 1844  
*Cervus elaphus yarkandensis* Blanford, 1892
- Distribution: *Cervus elaphus wallichii* G. Cuvier, 1823  
India—Extinct.  
Bhutan—Extinct.  
*Cervus elaphus hanglu* Wagner, 1844  
Endemic to India, Jammu and Kashmir and Himachal Pradesh  
*Cervus elaphus yarkandensis* Blanford, 1892  
Afghanistan—Badakhshan, Konduz, and Takhar Provinces
- Comments: All taxa listed here are accepted as distinct subspecies (Ellerman and Morrison-Scott 1951; Dolan 1988; Grubb 2005b), while some authorities treated them as distinct species (Geist 1998; Groves 2003). The taxon *wallichii* G. Cuvier, 1823 from Bhutan and Sikkim, India is extinct, while the taxon *hanglu* Wagner, 1844 is restricted to Dachigam and Srinagar City Forest National Parks in India (Groves 2003). The unconfirmed report of its presence in Neelam Valley of Disputed Kashmir region has been accorded as being present in North Pakistan (Roberts 1997; Grubb 2005b). The Red Deer in Afghanistan, reported as *Cervus elaphus bactrianus* Lydekker, 1900 by Habibi (2003), is presently in synonymy with *Cervus elaphus yarkandensis* Blanford, 1892 (Grubb 2005b). Also see Pitra et al. (2004).
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**Genus *Muntiacus* Rafinesque, 1815****Muntjacs**

Includes two species in South Asia. Groves (2003) raised the non-Sundaic form, *vaginalis* Boddaert, 1785, of *Muntiacus muntjak* (Zimmermann, 1780) to specific level, however, Grubb (2005b) treated it as subspecies of *Muntiacus muntjak* (Zimmermann, 1780).

**448. *Muntiacus vaginalis* (Boddaert, 1785)**1785. *Cervus vaginalis* Boddaert, Elench. Anim. 1:136

## Northern Red Muntjac (Indian Muntjac)

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- Type locality: Bengal
- Synonyms: *Cervus vaginalis* Boddaert, 1785  
*Cervus aureus* H. Smith, 1826  
*Cervus ratwa* Hodgson, 1833  
*Cervus melas* Ogilby, 1840  
*Cervus albipes* Wagner, 1844  
*Cervus styloceros* Schinz, 1845 (renaming of *melas*)  
*Styloceros muntjacus* Kelaart, 1852 (renaming of *vaginalis*)  
*Cervus tamulicus* Gray, 1872
- Subspecies: *Muntiacus muntjak vaginalis* (Boddaert, 1785)  
*Muntiacus muntjak malabaricus* Lydekker, 1915  
*Muntiacus muntjak aureus* H. Smith, 1826
- Distribution: *Muntiacus vaginalis vaginalis* (Boddaert, 1785)  
 Bangladesh—Barisal, Chittagong, Khulna and Sylhet  
 Bhutan—Central Bhutan  
 India—Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat (parts of),  
 Haryana, Himachal Pradesh, Jharkhand, Jammu and Kashmir (in  
 Disputed Kashmir), Madhya Pradesh, Maharashtra, Orissa, Rajasthan  
 (parts of), Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal  
 Nepal—Central, Far-Western, Mid-Western and Western Nepal  
 Pakistan—Punjab (in Margala Hills, no recent records)  
*Muntiacus vaginalis malabaricus* Lydekker, 1915  
 Endemic to South Asia  
 India—Goa, Karnataka, Kerala, Maharashtra, and Tamil Nadu  
 Sri Lanka—Central, Eastern, Sabargamuwa, Southern, Uva and Western  
 Provinces  
*Muntiacus vaginalis aureus* H. Smith, 1826  
 Endemic to India, Andhra Pradesh, Chhattisgarh, Jharkhand, Karnataka,  
 Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttarakhand, and  
 Uttar Pradesh
- Comments: Earlier included under *Muntiacus muntjac* (Zimmermann, 1780) (Grubb 2005b). See Timmins et al. (2008) for remarks on its taxonomic status. There are no recent reports of its sighting in Jammu and Kashmir and Pakistan. In India, a clear demarcation of the range of the three subspecies is still confusing
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**449. *Muntiacus putaoensis* Amato, Egan and Rabinowitz, 1999**1999. *Muntiacus putaoensis* Amato, Egan and Rabinowitz, *Animal Conservation*, 2:1–7

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**Leaf Muntjak**

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- Type locality: “purchased ... at Atanga village, 30 km east of Putao (27°21'N, 97°24'E), northern Myanmar [N Burma]”
- Synonyms: None
- Subspecies: None
- Distribution: *Muntiacus putaoensis* Amato, Egan and Rabinowitz, 1999  
India—Arunachal Pradesh, Nagaland and Manipur (eastern parts of, adjoining Myanmar border)
- Comments: Discovered to be present in South Asia in 2002 (Datta et al. 2003). James et al. (2008) confirmed its presence in India through molecular analysis
- 

**Genus *Rucervus* Hodgson, 1838****Rucervus Deer**

Includes two species in South Asia. Regarded as distinct genus, rather than the subgenus of either *Cervus* Linnaeus, 1758 or *Rusa* H. Smith, 1827 (Grubb, 1990). Includes two species in South Asia. Based on molecular analysis, Pitra et al. (2004) opine that *Rucervus eldi* be placed in genus *Cervus* Linnaeus, 1758.

**450. *Rucervus duvaucelii* (Cuvier, 1823)**1823. *Cervus duvaucelii* Cuvier, *Oss. Foss. ed.*, 2(4):505

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**Barasingha (Swamp Deer)**

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- Type locality: Northern India
- Synonyms: *Cervus duvaucelii* Cuvier, 1823  
*Cervus bahrainja* Hodgson, 1834  
*Cervus elaphoides* Hodgson, 1835 (substitute for *barainja*)  
*Cervus smithii* Gray, 1837  
*Cervus dimorphe* Hodgson, 1843  
*Cervus euryceros* Gray, 1850  
*Cervus eucladoceros* Falconer, 1863
- Subspecies: *Rucervus duvaucelii duvaucelii* (Cuvier, 1823)  
*Rucervus duvaucelii branderi* Pocock, 1943  
*Rucervus duvaucelii ranjitsinhi* (Groves, 1982)
- Distribution: Endemic to South Asia  
*Rucervus duvaucelii duvaucelii* (Cuvier, 1823)  
India—Uttarakhand  
Nepal—Far-Western Nepal  
Pakistan—Extinct  
*Rucervus duvaucelii branderi* Pocock, 1943  
India—Restricted to Kanha National Park, Madhya Pradesh  
*Rucervus duvaucelii ranjitsinhi* (Groves, 1982)  
Bangladesh—Extinct  
India—Assam
- Comments: Earlier treated as subgenus under genus *Cervus* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992). Reviewed by Groves (1982b). May possibly also occur in Bhutan
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**451. *Rucervus eldii* (McClelland, 1842)**1842. *Cervus eldi* McClelland, Calcutta J. N. H., 2:417

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**Eld's Deer (Brow-antlered Deer)**

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- Type locality: Manipur, India
- Synonyms: *Cervus eldi* McClelland, 1842  
*Cervus (Rusa) frontalis* McClelland, 1843  
*Panolia acuticornis* Gray, 1843  
*Cervus lyratus* Schinz, 1845  
*Panolia acuticauda* Blyth, 1864  
*Cervus eldi cornipes* Lydekker, 1901
- Subspecies: *Rucervus eldi eldi* (McClelland, 1842)
- Distribution: *Rucervus eldii eldii* (McClelland, 1842)  
 Endemic to India, Logtak Lake, Manipur
- Comments: Earlier treated under subgenus *Panolia* Gray, 1843 or genus *Cervus* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951; Corbet and Hill 1992; Grubb 1993b). See Pitra et al. (2004) for its phylogenetic relationship with other deer species
- 

**Genus *Rusa* H. Smith, 1827****Rusa Deer**

Includes one species in South Asia. Regarded as distinct genus, rather than the subgenus of *Cervus* Linnaeus, 1758 (Grubb 1990; Pitra et al. 2004).

**452. *Rusa unicolor* (Kerr, 1792)**1792. *Cervus axis unicolor* Kerr, Anim. Kingd., 300 pp

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**Sambar**

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- Type locality: Ceylon (=Sri Lanka as restricted by Lydekker, 1915)
- Synonyms: *Cervus axis unicolor* Kerr, 1792  
*Cervus axis major* Kerr, 1792  
*Cervus albicornis* Bechstein, 1799 (substitute for *major*)  
*Cervus niger* Blainville, 1816  
*Cervus aristotelis* Cuvier, 1823  
*Cervus leschenaulti* Cuvier, 1823  
*Cervus hippelaphus* H. Smith, 1827  
*Cervus jarai* Hodgson, 1841  
*Cervus heterocerus* Hodgson, 1841 (where the spelling is *heterocervus*)  
*Cervus nepalensis* Hodgson, 1841  
*Axis pennantii* Gray, 1843
- Subspecies: *Rusa unicolor unicolor* (Kerr, 1792)
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**Sambar**

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- Distribution: *Rusa unicolor unicolor* (Kerr, 1792)  
 Bangladesh—Chittagong and Sylhet  
 Bhutan—Central, East, and West Bhutan (in lower Himalayas)  
 India—Andhra Pradesh, Assam (Brahmaputra valley), Bihar, Chhattisgarh,  
 Goa, Gujarat (parts of), Haryana, Himachal Pradesh (foothills of  
 Himalayas), Jharkhand, Karnataka, Kerala, Madhya Pradesh,  
 Maharashtra, Orissa, Punjab, Rajasthan (parts of), Tamil Nadu,  
 Uttarakhand (plains), Uttar Pradesh, and West Bengal  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Sri Lanka—Central, Eastern, Northern, North Central, North Western,  
 Sabargamuwa, Southern, Uva, and Western Provinces
- Comments: Reviewed by Groves and Grubb (1987) and Pitra et al. (2004). Pocock  
 (1943b) reported the presence of *Rusa unicolor equina* (Cuvier, 1823) from  
 Garo Hills, Meghalaya and another locality in Assam, India. The taxon  
*equina* does not occur in South Asia (Leslie 2011)
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**Family Bovidae Gray, 1821**

Includes antilopine, bovine and caprine species belonging to 15 genera in three subfamilies, namely, Antilopinae Gray, 1821, Bovinae Gray, 1821, and Caprinae Gray, 1821 in South Asia.

**Subfamily Antilopinae Gray, 1821**

Includes the genera *Antilope* Pallas, 1766, *Gazella* de Blainville, 1816, and *Procapra* Hodgson, 1846 (Grubb 2005b).

**Genus *Antilope* Pallas, 1766****Blackbuck**

Monotypic genus.

**453. *Antilope cervicapra* (Linnaeus, 1758)**

1758. *Capra cervicapra* Linnaeus, Syst. Nat. 10th ed., 1:69

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**Blackbuck**

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- Type locality: Inland of Trivandrum, Travancore, India
- Synonyms: *Capra cervicapra* Linnaeus, 1758  
*Antilope rupicapra* Muller, 1776  
*Cemas strepsiceros* Oken, 1816  
*Antilope bilineata* Gray, 1830  
*Cervicapra bezoartica* Gray, 1843  
*Antilope hagenbecki* Zukowsky, 1927 (in Hagenbeck)  
*Antilope rajputanae* Zukowsky, 1927  
*Antilope centralis* Zukowsky, 1928
- Subspecies: *Antilope cervicapra cervicapra* (Linnaeus, 1758)  
*Antilope cervicapra rajputanae* Zukowsky, 1927
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**Blackbuck**

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- Distribution: Endemic to India.  
*Antilope cervicapra cervicapra* (Linnaeus, 1758)  
 Andhra Pradesh, Bihar (parts of), Chhattisgarh, Goa, Gujarat (parts of), Haryana (parts of), Jharkhand, Karnataka (parts of), Madhya Pradesh, Maharashtra (parts of), Orissa, Punjab (parts of), Rajasthan (parts of), Tamil Nadu, Uttar Pradesh (parts of), and West Bengal (parts of).  
*Antilope cervicapra rajputanae* Zukowsky, 1927  
 Gujarat (parts of), Haryana (parts of), Punjab (parts of), and Rajasthan (parts of)
- Comments: Reviewed by Groves (1982c). This taxon has been anihilated from Bangladesh, Nepal and Pakistan
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**Genus *Gazella* de Blainville, 1816****Gazelles****454. *Gazella subgutturosa* (Guldenstaedt, 1780)**1831. *Antilope subgutturosa* Guldenstaedt, Acta Acad. Sci. Petropoli, for 1778, 1:251 (1780)

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**Goitered Gazelle**

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- Type locality: Northwestern Persia (Georgia, steppes of East Transcaucasia, near Tbilisi)
- Synonyms: *Antilope subgutturosa* Guldenstaedt, 1831  
*Gazella subgutturosa typica* Lydekker, 1900  
*Gazella seistanica* Lydekker, 1910  
*Gazella subgutturosa seistanica* Lydekker, 1910
- Subspecies: *Gazella subgutturosa subgutturosa* (Guldenstaedt, 1780)
- Distribution: *Gazella subgutturosa subgutturosa* (Guldenstaedt, 1780)  
 Afghanistan—Badghis, Farah, Faryab, Helmand, Herat, Kandahar, and Nimruz Provinces  
 Pakistan—Balochistan
- Comments: Earlier included under subgenus *Trachelocele* Ellerman and Morrison-Scott, 1951 that was erected to accommodate this taxon as it possessed morphological and chromosomal differences from other representatives of the genus *Gazella* de Blainville, 1816 (Ellerman and Morrison-Scott 1951). However, its usage was discontinued. Following studies by Groves (1969) and Vassart et al. (1995), Grubb (2005b) opines that subgenus *Trachelocele* Ellerman and Morrison-Scott, 1951 should be recognized. Reviewed by Kingswood and Blank (1996)
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**455. *Gazella bennettii* (Sykes, 1831)**1831. *Antilope bennettii* Sykes, Proc. Zool. Soc. London, 104 pp

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**Chinkara (Indian Gazelle)**

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- Type locality: Deccan, India
- Synonyms: *Antilope bennettii* Sykes, 1831  
*Antilope arabica* Elliot, 1839  
*Gazella christii* Blyth, 1842  
*Antilope hazenna* I. Geoffroy, 1843  
*Gazella fuscifrons* Blanford, 1873  
*Gazella yarkandensis kennioni* Lydekker, 1908  
*Gazella shikarii* Groves, 1993
- Subspecies: *Gazella bennettii bennettii* (Sykes, 1831)  
*Gazella bennettii christyi* Blyth, 1842  
*Gazella bennettii fuscifrons* Blanford, 1873  
*Gazella bennettii shikarii* Groves, 1993
- Distribution: *Gazella bennettii bennettii* (Sykes, 1831)  
Endemic to India, Andhra Pradesh (parts of), Bihar (parts of), Chhattisgarh (parts of), Jharkhand (parts of), Madhya Pradesh (parts of), Maharashtra (parts of), and UttarPradesh (parts of)  
*Gazella bennettii christyi* Blyth, 1842  
Endemic to India, Gujarat  
*Gazella bennettii fuscifrons* Blanford, 1873  
Endemic to South Asia  
Afghanistan—Helmand, Kandahar, and Nimruz Provinces  
India—Rajasthan  
Pakistan—Balochistan, Sindh, and Punjab  
*Gazella bennettii salinarum* Groves, 2003  
Endemic to South Asia  
India—Haryana (parts of) and Punjab (parts of)  
Pakistan—Punjab (parts of)
- Comments: Earlier treated as subspecies of *Gazella gazella* Pallas, 1766 (Ellerman and Morrison-Scott 1951), it was subsequently raised to species level following Groves (1985, 1988, 1993b) and Furley et al. (1988) on the basis of karyological studies
- 

**Genus *Procapra* Hodgson, 1846****Asian Gazelles**

Some authors treated it as subgenus of *Gazella* de Blainville, 1816 (Gromov and Baranova 1981).

**456. *Procapra picticaudata* Hodgson, 1846**1846. *Procapra picticaudata* Hodgson, J. Asiat. Soc. Bengal, 15:334

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**Tibetan Gazelle (Goa)**

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Type locality:	Hundes district of Tibet
Synonyms:	None
Subspecies:	None
Distribution:	<i>Procapra picticaudata</i> Hodgson, 1846 India—Jammu and Kashmir (in Ladakh region) and Sikkim
Comments:	Seasonal migrant to India, numbers continually declining (Fox et al. 1991; Ushanganguli-Lachungpa 1997; Bhatnagar et al. 2006, 2007; Namgail et al. 2008; Leslie 2010)

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**Subfamily Bovinae Gray, 1821**

Includes the genera *Bos* Linnaeus, 1758, *Boselaphus* de Blainville, 1816, *Bubalus* H. Smith, 1827, and *Tetracerus* Leach, 1825 (Grubb 2005b).

**Genus *Bos* Linnaeus, 1758****Wild and Domestic Cattle**

Includes two species in South Asia. There have been unconfirmed reports of sighting of Banteng *Bos javanicus* d'Alton, 1823 from Manipur (Groves 2003).

**457. *Bos gaurus* H. Smith, 1827**1827. *Bos gaurus* H. Smith, Griffith's Cuvier Anim. Kingd., 4:399

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**Gaur (Indian Bison)**

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Type locality:	Mainpat, Sarguja Tributary States, India (ca. 23°N, 83°E)
Synonyms:	<i>Bos gour</i> Hardwicke, 1827 <i>Bibos subhemachalus</i> Hodgson, 1837 <i>Bos cavifrons</i> Hodgson, 1837 (substitute for <i>subhemachalus</i> ) <i>Bos gaur</i> Sundevall, 1846 (substitute for <i>gaurus</i> ) <i>Bos asseel</i> Horsfield, 1851 <i>Gauribos laosiensis</i> Heude, 1901
Subspecies:	<i>Bos gaurus gaurus</i> H. Smith, 1827 <i>Bos gaurus laosiensis</i> (Heude, 1901)
Distribution:	<i>Bos gaurus gaurus</i> H. Smith, 1827 India—Andhra Pradesh (parts of), Arunachal Pradesh, Assam, Chhattisgarh (parts of), Karnataka (parts of), Kerala (parts of), Madhya Pradesh (parts of), Maharashtra (parts of), Manipur, Meghalaya, Mizoram, Nagaland, Orissa (parts of), Sikkim, Tamil Nadu (parts of), and Tripura Nepal—Central and Western Nepal <i>Bos gaurus laosiensis</i> (Heude, 1901) Bangladesh—Chittagong Bhutan—Central and West Bhutan India—Assam

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**Gaur (Indian Bison)**

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Comments: Included under *Bos frontalis* Lambert, 1804 (*see* Grubb 2005b). However, biochemical studies suggests that these taxa are distinct and *Bos frontalis* Lambert, 1804 to be the domesticated derivative of *Bos gaurus* H. Smith, 1827. Although Grubb (2005b) provisionally lists *B. gaurus* H. Smith, 1827 under *B. frontalis* Lambert, 1804, we resolve to consider it distinct following Ellerman and Morrison-Scott (1951), Corbet and Hill (1992), Grubb (1993b), Gentry et al. (1996), and Groves (2003). In Bangladesh and Bhutan, intermediate forms of the two subspecies are seen. The pure form of this taxon might have probably become extinct in Bangladesh. It might have also occurred in Sri Lanka in historic times as evidenced by fossil form *B. frontalis sinhaleyus* Deraniyagala, 1939

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**458. *Bos mutus* (Przewalski, 1883)**1883. *Poëphagus mutus* Przewalski, Third Journey in C. Asia, 191

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**Wild Yak**

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Type locality: Northern Kansu, China (Harper 1940) (Alpine region of the western part of the Nan Shan (approximately 39°20'N, 95°E), Between the Anembar-Ula on the west and the Humboldt Range on the east)

Synonyms: *Poëphagus mutus* Przewalski, 1883

Subspecies: None

Distribution: *Bos mutus* (Przewalski, 1883)  
India—Jammu and Kashmir (in Ladakh)

Comments: Reviewed by Olsen (1990). Some authorities use *Bos mutus* (Przewalski, 1883) as the nomen *grunniens* Linnaeus, 1766 is based on domesticated forms. See Gentry et al. (1996), Bock (1997), and Leslie and Schaller (2009) for discussion on nomen use. Indian population of wild yak might have been lost, due to hybridization with domestic yak

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**Genus *Boselaphus* de Blainville, 1816****Nilgai**

Monotypic genus (Hassanin and Ropiquet 2004; Leslie 2008).

**459. *Boselaphus tragocamelus* (Pallas, 1766)**1766. *Antilope tragocamelus* Pallas, Misc. Zool., 5 pp

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**Nilgai**

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Type locality: Plains of Peninsular India

Synonyms: *Antilope tragocamelus* Pallas, 1766  
*Antilope albipes* Erxleben, 1777  
*Antilope picta* Pallas, 1777  
*Damalis risia* H. Smith, 1827 (substitute for *picta*)  
*Tragelaphus hippelaphus* Ogilby, 1837  
*Portax tragelaphus* Sundevall, 1846

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**Nilgai**

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- Subspecies: None
- Distribution: Endemic to South Asia  
*Boselaphus tragocamelus* (Pallas, 1766)  
 Bangladesh—Extinct  
 India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan (excepting desert), Orissa, Uttar Pradesh, and West Bengal (parts of)  
 Pakistan—Punjab (parts of) and Sindh (parts of)  
 Nepal—Eastern, Far-Western and Mid-Western Nepal
- Comments: In Bangladesh, this taxon was known from Dinajpur district
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**Genus *Bubalus* H. Smith, 1827****Wild and Domestic Buffaloes**

Includes two species in South Asia.

**460. *Bubalus arnee* (Kerr, 1792)**1792. *Bos arnee* Kerr, Anim. Kingd., 336 pp

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**Wild Buffalo (Asian Buffalo, Asiatic Buffalo)**

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- Type locality: “India, north from Bengal” (restricted to Cooch Bihar by Harper 1940)
- Synonyms: *Bos arnee* Kerr, 1792  
*Bos ami* H. Smith, 1827  
*Bubalus arna* Hodgson, 1841  
*Bubalus arna* var. *macrocerus* Hodgson, 1842  
*Bubalus arna* var. *speirocerus* Hodgson, 1842  
*Buffelus indicus* Rutimeyer, 1865  
*Buffelus indicus* var. *italica* Rutimeyer, 1865  
*Bos bubalus* var. *fulvus* Blanford, 1891  
*Bubalus bubalis fulvus* (Blanford, 1891)  
*Bubalus bubalus septentrionalis* Matschie, 1912
- Subspecies: *Bubalus arnee arnee* (Kerr, 1792)  
*Bubalus arnee fulvus* (Blanford, 1891)
- Distribution: *Bubalus arnee arnee* (Kerr, 1792)  
 Endemic to South Asia  
 India—Chhattisgarh (only in Raipur and Bastar districts)  
 Nepal—Eastern Nepal (only in Kosi Tapu)  
 Sri Lanka—Extinct  
*Bubalus arnee fulvus* (Blanford, 1891)  
 Endemic to South Asia  
 Bangladesh—Extinct  
 Bhutan—East Bhutan (in the terai regions of Royal Manas National Park)  
 India—West Bengal (Manas Wildlife Sanctuary)
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**Wild Buffalo (Asian Buffalo, Asiatic Buffalo)**

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Comments: Earlier included under *Bubalus bubalis* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951), now considered distinct (Corbet and Hill 1992; Groves 1996, 2003). The nomen—*Bubalus bubalis* Linnaeus, 1758—presently represents domestic forms, while the taxon *Bubalus arnee* (Kerr, 1792) represents the wild forms (Gentry et al. 2004). Once widespread, the subspecies *Bubalus arnee arnee* (Kerr, 1792) occurred in part from the Godavari river basin in Andhra Pradesh to Nepal through Orissa, Madhya Pradesh, Bihar, and West Bengal, while the later subspecies ranged from terai regions of West Bengal, Assam to Chittagong in Bangladesh. Introduced in to Sri Lanka from where the wild populations have been annihilated

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**Genus *Tetracerus* Leach, 1825****Four-horned Antelope**

Monotypic genus (Leslie and Sharma 2009).

**461. *Tetracerus quadricornis* (de Blainville, 1816)**

1816. *Cerophorus (Cervicapra) quadricornis* Blainville, Bull. Soc. Philom. Paris, 75 and 78

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**Chowsingha (Four-horned Antelope)**

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Type locality: Plains of Peninsular India

Synonyms: *Cerophorus (Cervicapra) quadricornis* Blainville, 1816  
*Antilope chickara* Hardwicke, 1825  
*Tetracerus striatocornis* Brookes, 1828  
*Antilope tetracornis* Hodgson, 1836  
*Antilope sub-4-cornutus* Elliot, 1839  
*Tetracerus subquadricornis* Gray, 1843  
*Tetracerus subquadricornutus* Hodgson, 1847 (emendation of *sub-4-cornutus* of Elliot, 1839)  
*Tetracerus iodes* Hodgson, 1847  
*Tetracerus paccerois* Hodgson, 1847

Subspecies: *Tetracerus quadricornis quadricornis* (de Blainville, 1816)  
*Tetracerus quadricornis iodes* Hodgson, 1847  
*Tetracerus quadricornis subquadricornis* Gray, 1843

Distribution: Endemic to South Asia  
*Tetracerus quadricornis quadricornis* (de Blainville, 1816)  
 India—Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan (parts of), Uttar Pradesh, and West Bengal  
*Tetracerus quadricornis iodes* Hodgson, 1847  
 India—Uttar Pradesh  
 Nepal—Far-Western, Mid-Western, and Western Nepal  
*Tetracerus quadricornis subquadricornis* Gray, 1843  
 India—Karnataka and Tamil Nadu

Comments: This taxon has been revised by Groves (2003). Also see Leslie and Sharma (2009)

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### Subfamily Caprinae Gray, 1821

The subfamily Caprinae Gray, 1821 is composed of four tribes, namely—Caprini (including the genera *Capra* Linnaeus, 1758, *Capricornis* Ogilby, 1837, *Hemitragus* Hodgson, 1841, *Ovis* Hodgson, 1834, *Pseudois* Hodgson, 1846), Naemorhedini (including the genus *Naemorhedus* Hamilton Smith, 1827), Ovibovini (including the genus *Budorcas* Hodgson, 1850), and Pantholopini (including *Pantholops* Hodgson, 1834).

### Genus *Budorcas* Hodgson, 1850

#### Takin

Monotypic genus.

#### 462. *Budorcas taxicolor* Hodgson, 1850

1850. *Budorcas taxicolor* Hodgson, J. Asiat. Soc. Bengal, 19:65

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#### Takin

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Type locality: Mishmi Hills, India

Synonyms: None

Subspecies: *Budorcas taxicolor taxicolor* Hodgson, 1850

*Budorcas taxicolor whitei* Lydekker, 1907

Distribution: *Budorcas taxicolor taxicolor* Hodgson, 1850

India—Arunachal Pradesh (in Mishmi Hills)

*Budorcas taxicolor whitei* Lydekker, 1907

Bhutan—Central, East and West Bhutan

India—Arunachal Pradesh and Sikkim

Comments: Groves (2003) opines that the South Asian Takin differs from the Chinese forms morphologically. Also see Groves and Shields (1997)

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### Genus *Capra* Linnaeus, 1758

#### Wild and Domestic Goat

Includes three species in South Asia (Grubb 2005b). See Pidancier et al. (2006) for detailed phylogenetic analysis of this genus.

**463. *Capra sibirica* (Pallas, 1776)**1776. *Ibex sibiricus* Pallas, Spic. Zool., 11:52

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**Siberian Ibex (Himalayan Ibex)**

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- Type locality: Northern slope of Sayan Mountains, west of Lake Baikal, Siberia
- Synonyms: *Ibex sibiricus* Pallas, 1776  
*Capra pallasii* Schinz, 1838 (Renaming of *sibiricus*)  
*Capra ibex sibirica* (Pallas, 1776)  
*Capra ibex* var. *hemalayanus* Hodgson, 1841  
*Capra sakeen* Blyth, 1842  
*Capra sibirica sakeen* Blyth, 1842  
*Aegoceros skyn* Wagner, 1844  
*Ibex sakin* Hodgson, 1847 (*nomen nudum*)  
*Capra dauvergnii* Sterndale, 1866  
*Capra sibirica sacin* Lydekker, 1898 (substitute for *skyn*)  
*Capra sibirica wardi* Lydekker, 1900  
*Capra sibirica pedri* Lorenz, 1906  
*Capra sibirica filippii* Camerano, 1911
- Subspecies: None
- Distribution: *Capra sibirica* (Pallas, 1776)  
Afghanistan—Badakhshan Province  
India—Himachal Pradesh and Jammu and Kashmir (including Disputed Kashmir)  
Pakistan—Khyber Pakhtunkhwa
- Comments: Earlier included under *Capra ibex* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951) presently treated distinct (Heptner et al. 1961). See Pidancier et al. (2006)
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**464. *Capra aegagrus* Erxleben, 1777**1777. *Capra aegagrus* Erxleben, Syst. Regn. Anim., 260 pp

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**Wild Goat**

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- Type locality: Daghestan district of Caucasus, South-eastern Russia
- Synonyms: *Capra hircus aegagrus* Erxleben, 1777  
*Capra blythi* Hume, 1875  
*Capra falconeri chialtanensis* Lydekker, 1913
- Subspecies: *Capra aegagrus blythi* Hume, 1875  
*Capra aegargus chialtanensis* Lydekker, 1913
- Distribution: *Capra aegagrus blythi* Hume, 1875  
Pakistan—Balochistan and Sindh  
*Capra aegargus chialtanensis* Lydekker, 1913  
Endemic to Pakistan, Balochistan
- Comments: Earlier included under *Capra hircus* Linnaeus, 1758 (Ellerman and Morrison-Scott 1951). This taxon has been reviewed by Schaller and Khan (1975), Roberts (1977, 1997), Shafiq and Barkati (2002), Groves (2003), and Grubb (2005b). This taxon has not been sighted in Afghanistan since very long
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**465. *Capra falconeri* (Wagner, 1839)**1839. *Aegoceros (Capra) falconeri* Wagner, Munch. Gelehrt. Anz., 9:430

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**Markhor**

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- Type locality: Astor, Kashmir
- Synonyms: *Aegoceros (Capra) falconeri* Wagner, 1776  
*Capra megaceros* Hutton, 1842  
*Capra jerdoni* Hume, 1875  
*Capra falconeri jerdoni* Hume, 1875  
*Capra falconeri cashmiriensis* Lydekker, 1898  
*Capra falconeri chitralensis* Cobb, 1958  
*Capra falconeri gilgitensis* Cobb, 1958 (*nomen nudum*)
- Subspecies: *Capra falconeri falconeri* (Wagner, 1839)  
*Capra falconeri megaceros* Hutton, 1842  
*Capra falconeri heptneri* Zalkin, 1945
- Distribution: *Capra falconeri falconeri* (Wagner, 1839)  
 Endemic to South Asia  
     Afghanistan—Konar, Laghman, Lowgar, Nangarhar, Nuristan, and Paktiya Provinces  
     India—Jammu and Kashmir (including Disputed Kashmir)  
     Pakistan—Khyber Pakhtunkhwa  
*Capra falconeri megaceros* Hutton, 1842  
 Endemic to South Asia  
     Afghanistan—Kandahar and Zabol Provinces  
     Pakistan—Balochistan, Punjab, and Sindh  
*Capra falconeri heptneri* Zalkin, 1945  
     Afghanistan—Badakhshan Province
- Comments: Some authorities also include forms that are presently considered as hybrids of markhor and goat. There are no new sighting reports of this taxon in Afghanistan
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**Genus *Capricornis* Ogilby, 1837****Serows**

This genus is represented by six species. One species is known from South Asia. Additionally, the taxon *Capricornis milneedwardsii* David, 1869 might probably occur in parts of Arunachal Pradesh bordering Myanmar.

**466. *Capricornis thar* (Hodgson, 1831)**1831. *Antilope thar* Hodgson, Gleanings Science, 3:324

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Himalayan Serow

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- Type locality: Nepal, Himalayas
- Synonyms: *Antilope thar* Hodgson, 1831  
*Antilope bubalina* Hodgson, 1832  
*Naemorhedus* or *Kemas proclivus* or *thar* Hodgson, 1842 (*nomen nudum*)  
*Capricornis sumatraensis thar* (Hodgson, 1831)  
*Capricornis sumatraensis humei* Pocock, 1908  
*Capricornis sumatraensis rodoni* Pocock, 1908  
*Capricornis sumatraensis jamrachi* Pocock, 1908
- Subspecies: None
- Distribution: *Capricornis thar* (Hodgson, 1831) Bangladesh—Chittagong and Sylhet  
 Bhutan—Central and West Bhutan  
 Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 India—Arunachal Pradesh, Assam (parts of), Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), Manipur, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, and West Bengal (the Himalayas)
- Comments: Earlier included under *Capricornis sumatraensis* (Bechstein, 1799) (Ellerman and Morrison-Scott 1951) from which it differs (Groves 2003; Grubb 2005b). The records of *Capricornis sumatraensis rubidus* Blyth, 1863 from Assam, Meghalaya, and Tripura are presently considered to be those of *Capricornis thar* (Hodgson, 1831) (Green 1987) pending further taxonomic studies
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**Genus *Hemitragus* Hodgson, 1841****Himalayan Tahr**

Monotypic genus. Molecular analyses of the species belonging to the genus *Hemitragus* Hodgson, 1841 (namely *jemlahicus* C. H. Smith, 1826, *hylocrius* Ogilby, 1838, and *jayakari* Thomas, 1894) suggest all the three to be distinct (Ropiquet and Hassanin 2005). These species are presently accommodated into three genera, namely, *Hemitragus* Hodgson, 1841 [including *jemlahicus* (C. H. Smith, 1826)], *Nilgiritragus* Ropiquet and Hassanin 2005 [including *hylocrius* (Ogilby, 1838)], and *Arabitragus* Ropiquet and Hassanin 2005 [including *jayakari*]

**467. *Hemitragus jemlahicus* (C. H. Smith, 1826)**1826. *Capra jemlahica* C. H. Smith, Anim. Kingd. 4:308

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Himalayan Tahr

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- Type locality: Jemla Hills, Nepal
- Synonyms: *Capra jemlahica* H. Smith, 1826  
*Capra jharal* Hodgson, 1833  
*Capra quadrimmamis* Hodgson, 1836  
*Capra tuberculicornis* Schinz, 1845 (sustitute for *jemlahica*)  
*Hemitragus jemlaicus* Gray, 1847  
*Hemitragus jemlahicus schaeferi* Pohle, 1944
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**Himalayan Tahr**

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- Subspecies: None  
 Distribution: *Hemitragus jemlahicus* (C. H. Smith, 1826)  
     Bhutan—West Bhutan  
     India—Jammu and Kashmir (including Disputed Kashmir), Himachal Pradesh, Uttarakhand, and Sikkim  
     Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
 Comments: None
- 

**Genus *Naemorhedus* Hamilton Smith, 1827****Gorals**

Includes three species in South Asia (Grubb 2005b). Earlier included the genus *Capricornis* Ogilby, 1837 (Groves and Grubb 1985).

**468. *Naemorhedus goral* (Hardwicke, 1825)**

1825. *Antilope goral* Hardwicke, Trans. Linn. Soc. London, 14:518

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**Himalayan Goral**

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- Type locality: Nepal, Himalaya  
 Synonyms: *Antilope goral* Hardwicke, 1825  
     *Antilope duvaucelii* H. Smith, 1827  
     *Urotragus bedfordi* Lydekker, 1905  
     *Naemorhedus hodgsoni* Pocock, 1908  
     *Naemorhedus goral hodgsoni* Pocock, 1908  
 Subspecies: *Naemorhedus goral goral* (Hardwicke, 1825)  
     *Naemorhedus goral bedfordi* (Lydekker, 1905)  
 Distribution: *Naemorhedus goral goral* (Hardwicke, 1825)  
     Bhutan—Central, East, and West Bhutan  
     India—Arunachal Pradesh, Manipur, Mizoram, Nagaland, and Sikkim  
     *Naemorhedus goral bedfordi* (Lydekker, 1905)  
     India—Himachal Pradesh, Jammu and Kashmir (including Disputed Kashmir), and Uttarakhand  
     Nepal—Central, Eastern, Far-Western, Mid-Western, and Western Nepal  
     Pakistan—Khyber Pakhtunkhwa  
 Comments: Reviewed by Dolan (1963) and Mead (1989)
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**469. *Naemorhedus griseus* Milne-Edwards, 1872**

1872. *Naemorhedus griseus* Milne-Edwards, Nouv. Arch. Mus. Hist. Nat. Paris, 7, Bull.:93

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**Chinese Goral (Grey Long-tailed Goral)**

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- Type locality: Moupin, Sichuan, China  
 Synonyms: *Naemorhedus goral griseus* Milne-Edwards, 1872  
 Subspecies: None
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**Chinese Goral (Grey Long-tailed Goral)**

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- Distribution: *Naemorhedus griseus* Milne-Edwards, 1872  
India—Arunachal Pradesh, Manipur, Mizoram, Nagaland, and Tripura  
(possibly)
- Comments: Earlier included under *Naemorhedus goral* (Hardwicke, 1825) (Ellerman and Morrison-Scott 1951), this taxon is presently considered distinct (Grubb 2005b)
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**470. *Naemorhedus baileyi* Pocock, 1914**1914. *Naemorhedus baileyi* Pocock, Jour. Bombay Nat. Hist. Soc., 23:32

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**Red Goral**

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- Type locality: Dre, on the banks of Yigrong Tso (Lake) in Po Me, Tibet
- Synonyms: *Naemorhedus goral baileyi* Pocock, 1914
- Subspecies: None
- Distribution: *Naemorhedus baileyi* Pocock, 1914  
India—Arunachal Pradesh
- Comments: Earlier included under *Naemorhedus goral* (Hardwicke, 1825) (Ellerman and Morrison-Scott 1951), this taxon is presently considered distinct (Groves and Grubb 1985; Grubb 2005b). Mishra et al. (2006) report the presence of this species in western Arunachal Pradesh
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**Genus *Nilgiritragus* Ropiquet and Hassanin 2005****Nilgiri Tahr**

Monotypic genus, endemic to India. Earlier included under genus *Hemitragus* presently treated distinct (Ropiquet and Hassanin 2005). See comments therein.

**471. *Nilgiritragus hylocrius* (Ogilby, 1838)**1838. *Kemas hylocrius* Ogilby, Proc. Zool. Soc. London, 81 pp

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**Nilgiri Tahr**

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- Type locality: Nilgiri Hills, Southern India
- Synonyms: *Kemas hylocrius* Ogilby, 1838  
*Hemitragus hylocrius* (Ogilby, 1838)  
*Hemitragus jemlahicus hylocrius* (Ogilby, 1838)  
*Capra (Ibex) warryato* Gray, 1842
- Subspecies: None
- Distribution: Endemic to India  
*Nilgiritragus hylocrius* (Ogilby, 1838)  
Kerala and Tamil Nadu (restricted to the Nilgiri Hills and Highway Mountains)
- Comments: Earlier included under *Hemitragus jemlahicus* (H. Smith, 1826) (Haltenorth 1963). See Ropiquet and Hassanin (2005)
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## Genus *Ovis* Hodgson, 1834

### Wild and Domestic Sheep

#### 472. *Ovis ammon* (Linnaeus, 1758)

1758. *Capra ammon* Linnaeus, Syst. Nat. 10th ed., 1:70

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#### Argali (Wild Sheep)

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- Type locality: Altai Mountains, Northeastern Russian Turkestan
- Synonyms: *Capra ammon* Linnaeus, 1758  
*Ovis hodgsoni* Blyth, 1841  
*Ovis ammonoides* Hodgson, 1841  
*Ovis polii* Blyth, 1841  
*Caprovis bambhera* Gray, 1842  
*Ovis blythi* Severtzov, 1873  
*Ovis brookeri* Ward, 1874  
*Ovis henrii* Milne-Edwards, 1892
- Subspecies: *Ovis ammon hodgsoni* Blyth, 1841  
*Ovis ammon polii* Blyth, 1841
- Distribution: *Ovis ammon hodgsoni* Blyth, 1841  
 India—Himachal Pradesh, Jammu and Kashmir, and Sikkim  
 Nepal—Central Nepal  
*Ovis ammon polii* Blyth, 1841  
 Afghanistan—Badakhshan Province  
 India—Jammu and Kashmir (in Disputed Kashmir)
- Comments: None
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#### 473. *Ovis orientalis* Gmelin, 1774

1774. *Ovis orientalis* Gmelin, Reise Russ. Reichs. 3:432, 486

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#### Urial (Cyprian Wild Sheep)

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- Type locality: Eastern part of Elburz Mountains, Persia
- Synonyms: *Ovis orientalis vignei* Blyth, 1841  
*Ovis vignei* Blyth, 1841  
*Ovis cycloceros* Hutton, 1842  
*Ovis orientalis cycloceros* Hutton, 1842  
*Ovis montana* Cunningham, 1854  
*Ovis blanfordi* Hume, 1877  
*Ovis orientalis blanfordi* Hume, 1877
- Subspecies: *Ovis orientalis vignei* Blyth, 1841  
*Ovis orientalis cycloceros* Hutton, 1842  
*Ovis orientalis punjabiensis* Lydekker, 1913
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**Urial (Cyprian Wild Sheep)**

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- Distribution: *Ovis orientalis vignei* Blyth, 1841  
 Endemic to South Asia  
 India—Jammu and Kashmir (Zanskar in Ladakh and in Disputed Kashmir)  
 Pakistan—Khyber Pakhtunkhwa
- Ovis orientalis cycloceros* Hutton, 1842  
 Afghanistan—Badakhshan, Baghlan, Bamian, Ghazni, Ghowr, Kabul, Konar, Laghman, Lowgar, Nangarhar, Nuristan, Paktiya, Paktika, Parvan, Samangan, Sar-e-Pol, Takhar, Vardak, and Zabol Provinces  
 India—Jammu and Kashmir (in Disputed Kashmir)  
 Pakistan—Balochistan, Khyber Pakhtunkhwa, and Sindh
- Ovis orientalis punjabiensis* Lydekker, 1913  
 Endemic to Pakistan, Punjab
- Comments: Some workers include this taxon under *Ovis aries* Linnaeus, 1758 (see Nadler et al. 1971; Corbet and Hill 1992; Grubb 1993b, 2005b for comments). The nomen *Ovis orientalis* Gmelin, 1774 is applicable to wild populations, while *Ovis aries* Linnaeus, 1758 is applicable to domesticated sheep (Gentry et al. 1996)
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**Genus *Pantholops* Hodgson, 1834****Tibetan Antelope**

Monotypic genus.

**474. *Pantholops hodgsonii* (Abel, 1826)**1826. *Antelope hodgsonii* Abel, Calcutta Govt. Gazette (N. V.):Phil. Mag. 68:234

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**Chiru (Tibetan Antelope)**

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- Type locality: Tingri Maidan, Arrun Valley, Kooti Pass, Tibet
- Synonyms: *Antelope hodgsonii* Abel, 1826  
*Antelope chiru* Lesson, 1827
- Subspecies: None
- Distribution: *Pantholops hodgsonii* (Abel, 1826)  
 India—Jammu and Kashmir (restricted to Chan Chen Mo Valley in Ladakh)  
 Nepal—Extinct
- Comments: Earlier existed in a few pockets in Far-Western Nepal, presently extinct (Schaller 1977). See Leslie and Schaller (2008)
-

## Genus *Pseudois* Hodgson, 1846

### Blue Sheep

#### 475. *Pseudois nayaur* (Hodgson, 1833)

1833. *Ovis nayaur* Hodgson, Asiatick. Res., 18(2):135

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Bharal (Himalayan Blue Sheep)

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Type locality: Tibetan frontier of Nepal

Synonyms: *Ovis nayaur* Hodgson, 1833

*Ovis nahoor* Hodgson, 1835 (alternative to *nayaur*)

*Ovis nahura* Gray, 1843

Subspecies: None

Distribution: *Pseudois nayaur* (Hodgson, 1833)

Bhutan—Central, East, and West Bhutan

India—Arunachal Pradesh, Disputed Kashmir, Himachal Pradesh, Jammu and Kashmir (in Ladakh), Sikkim, and Uttarakhand

Nepal—Eastern, Central, Far-Western, Mid-Western, and Western Nepal

Comments: Reviewed by Groves (1978) and Wang and Hoffmann (1987)

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## Order Cetacea Brisson, 1762

The order Cetacea is divided into two suborders, namely, Mysticeti Flower, 1864 and Odontoceti Flower, 1867 (Perrin et al. 2008).

### Suborder Mysticeti Flower, 1864

The Mysticeti includes baleen whales in two superfamilies Balaenoidea including family Balaenidae and Balaenopteroidea including family Balaenopteridae in South Asia.

#### Family Balaenidae Gray, 1821

#### Genus *Eubalaena* Gray, 1864

#### Right Whales

The present day taxonomy of the Right whales follows that of International Whaling Commission Scientific Committee (IWC 2004) recommendations of recognizing the populations of the right whales throughout the world into three distinct subpopulations namely the North Atlantic, North Pacific, and the Southern Hemisphere represented by three distinct species of the genus *Eubalaena*, namely, *E. glacialis* (North Atlantic Right Whale), *E. japonica* (North Pacific Right Whale), and *E. australis* (Southern Right Whale) supported by molecular studies by Rosenbaum et al. (2000). Keeping in view the taxonomic changes, the records off the coast of India are presently attributed to those of *Eubalaena australis* the Southern Right Whale.

**476. *Eubalaena australis* (Desmoulins, 1822)**

1822. *Balaena australis* Desmoulins, Baleine:155–160, In:Dictionaire classique d'Histoire naturelle. 2. Paris, Rey et Gravier page(s):161

## Southern Right Whale

Type locality: South Africa:Algoa Bay, Cape of Good Hope

Synonyms; *Balaena australis* Desmoulins, 1822

*Balaena glacialis australis* Scheffer and Rice, 1963

*Eubalaena glacialis australis* Tomlin, 1962

*Macleayius australiensis* Gray, 1865

Subspecies: None

Distribution: *Eubalaena australis* (Desmoulins, 1822)

Arabian Sea [India—along the coasts of Gujarat]

Comments: See Cummings (1985a)

**Family Balaenopteridae Gray, 1864****Genus *Balaenoptera* Lacepede, 1804****Rorquals****477. *Balaenoptera musculus* (Linnaeus, 1758)**

1758. *Balaena musculus* Linnaeus, Syst. Nat. 10th ed., 1:76

## Blue Whale

Type locality: Firth of Forth, Scotland, United Kingdom

Synonyms: *Balaena musculus* Linnaeus, 1758

Subspecies: *Balaenoptera musculus brevicauda* Ichihara, 1966

*Balaenoptera musculus indica* Blyth, 1859

Distribution: Arabian Sea, Bay of Bengal and Indian Ocean

*Balaenoptera musculus brevicauda* Ichihara, 1966

Arabian Sea, Bay of Bengal, and India Ocean [India—along the coasts of Gujarat, Karnataka, Kerala, Maharashtra, and Tamil Nadu; Pakistan—along the Mekran coast; Sri Lanka—at Thambalagam Bay, Koddigar Bay in Trincomalee on the east coast, Colombo, and Negombo on the west coast]

*Balaenoptera musculus indica* Blyth, 1859

Arabian Sea, Bay of Bengal and India Ocean [India—along the coasts of Andhra Pradesh, Gujarat, Kerala, and Tamil Nadu]

Comments: The taxon *indica* Blyth, 1859 was earlier synonymized under *Balaenoptera musculus* (Linnaeus, 1758) (Ellerman and Morrison-Scott 1951).

Recognized as subspecies of this taxon (Mead and Brownell 2005). This taxon has been reviewed by Yochem and Leatherwood (1985). See Ilangakoon (2002) for distribution records off Sri Lanka

**478. *Balaenoptera physalus* (Linnaeus, 1758)**1758. *Balaena physalus* Linnaeus, Syst. Nat. 10th ed., 1:75

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**Fin Whale (Common Rorqual)**

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- Type locality: Restricted to Norway, near Svalbard, Spitsbergen Sea (Thomas 1911)
- Synonyms: *Balaena physalus* Linnaeus, 1758  
*Balaenoptera blythii* Anderson, 1879  
*Balaenoptera musculus brevicauda* Ichihara, 1966
- Subspecies: None
- Distribution: *Balaenoptera physalus* (Linnaeus, 1758)  
Arabian Sea, Bay of Bengal and Indian Ocean [India—along the coasts of Goa, Gujarat, Karnataka, Maharashtra, Tamil Nadu, and West Bengal; Pakistan—Karachi coast, Mekran coast, Astola Island, and Gwadar; Sri Lanka—Jaffna on the northern coast, Negombo on the west coast, and Trincomalee on the east coast]
- Comments: This species has been reviewed by Gambell (1985). See Ilangakoon (2002) for distribution records off Sri Lanka
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**479. *Balaenoptera acutorostrata* Lacepede, 1804**1804. *Balaenoptera acuto-rostrata* Lacepede, Hist. Nat. des Cetaces 134p

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**Common Minke Whale (Dwarf Minke Whale)**

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- Type locality: France
- Synonyms: None
- Subspecies: None
- Distribution: *Balaenoptera acutorostrata* Lacepede, 1804  
Arabian Sea, Bay of Bengal and Indian Ocean [India—along the coasts of Tamil Nadu and Andhra Pradesh; Sri Lanka—Clappenburg Bay in Trincomalee on the west coast, Thalawila on the northwest coast, and Negombo on the west coast]
- Comments: This species has been reviewed by Stewart and Leatherwood (1985). See Ilangakoon (2002) for distribution records off Sri Lanka
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**480. *Balaenoptera edeni* Anderson, 1879**1879. *Balaenoptera edeni* Anderson, Anat. Zool. Res. Yunnan Exped., p. 551

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**Bryde's Whale (Common Bryde's Whale)**

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- Type locality: Gulf of Martaban, between Sittang and Beeling rivers, Burma
- Synonyms: None
- Subspecies: None
- Distribution: *Balaenoptera edeni* Anderson, 1879  
Arabian Sea, Bay of Bengal and Indian Ocean [India—along the coasts of Kerala and Tamil Nadu; Pakistan—Sonmiani in Lasbela, Karachi coast; Sri Lanka—Mirijjawila at Hambantota on the southern coast, Trincomalee on the east coast, Colombo on the west coast, also seen on the northern coast]
- Comments: Ellerman and Morrison-Scott (1951) included this taxon under *Balaenoptera acutorostrata* Lacepede, 1804. However, later workers (Corbet and Hill 1992; Mead and Brownell 1993) considered the two species to be distinct. This species has been reviewed by Cummings (1985b). See Ilangakoon (2002) for distribution records off Sri Lanka
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**Genus *Megaptera* Gray, 1846**

**Humpback Whale**

**481. *Megaptera novaeangliae* (Borowski, 1781)**

1781. *Balaena novae angliae* Borowski, Gemein. Naturgesch. Thier., 2(1):21

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Humpback Whale

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Type locality: New England Coast (=USA)

Synonyms: *Balaena novae angliae* Borowski, 1781

Subspecies: None

Distribution: *Megaptera novaeangliae* (Borowski, 1781)

Arabian Sea, Bay of Bengal, and Indian Ocean [India—along the coasts of Kerala and Tamil Nadu; Pakistan—Port Qasim; Sri Lanka—Chilaw on the north-west coast, Hendala, Uswetakeiyawa, Colombo on the West coast, and the Gulf of Mannar]

Comments: This species has been reviewed by Winn and Reichley (1985). The distribution refers to the Arabian Sea subpopulation of this species. See Ilangakoon (2002) for distribution records off Sri Lanka

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**Suborder Odontoceti Flower, 1867**

Includes 27 species of toothed whales, dolphins, and porpoises in five families (namely, Delphinidae Gray, 1821, Phocoenidae Gray, 1825, Physeteridae Gray, 1821, Platanistidae Gray, 1846, and Ziphiidae Gray, 1865) in South Asia.

**Family Delphinidae Gray, 1821**

**Marine Dolphins**

The family Delphinidae includes 14 genera pertaining to the region.

**Genus *Delphinus* Linnaeus, 1758**

**Common Dolphin**

Until the last decade, all the Dolphins of the world were treated as a single species *Delphinus delphis* Linnaeus, 1758; however, studies by Heyning and Perrin (1994) showed that there exist two distinct species namely *Delphinus delphis* Linnaeus, 1758 (the Short-beaked Common Dolphin) and *Delphinus capensis* Gray, 1828 (the Long-beaked Common Dolphin). The records under the taxon *Delphinus delphis* Linnaeus, 1758 are now presently included under *Delphinus capensis* Gray, 1828.

**482. *Delphinus capensis* Gray, 1828**1758. *Delphinus capensis* Gray, Spic. Zool. 1, 2:pl. 2, fig. 1

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**Long-beaked Common Dolphin**

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- Type locality: South Africa:Cape of Good Hope  
 Synonyms: *Delphinus capensis* Rapp, 1837  
 Subspecies: *Delphinus capensis tropicalis* Jefferson and Van Waerebeek 2002  
 Distribution: *Delphinus capensis tropicalis* Jefferson and Van Waerebeek 2002  
 Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—along the coasts of Andaman and Nicobar Islands, Andhra Pradesh, Goa, Kerala, Lakshadweep Islands, Orissa, and Tamil Nadu; Maldives; Pakistan—Mekran and Karachi Coasts; Sri Lanka—Trincomalee, Mirissa, Kalpitiya, Batticaloa Lagoon, Negombo, Gulf of Mannar, also seen in east, south, northeast, northwest, and west coasts]  
 Comments: The taxon *D. tropicalis* van Bree, 1971 was earlier considered distinct due to its exceptionally long beak (van Bree and Gallagher 1978; Rice 1998); however, based on recent morphometric studies, it was opined to include the taxon *D. tropicalis* under *D. capensis* and treat it as a subspecies (Jefferson and Van Waerebeek 2002). Additionally, this subspecies occurs in the Indo-Pacific region. See Ilangakoon (2002) for distribution records off Sri Lanka
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**Genus *Feresa* Gray, 1870****Pygmy Killer Whale****483. *Feresa attenuata* Gray, 1875**1875. *Feresa attenuata* Gray, J. Mus. Godeffroy (Hamburg), 8:184.

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**Pygmy Killer Whale**

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- Type locality: Southern Seas  
 Synonyms: *Delphinus intermedius* Gray, 1827 preoccupied by *D. intermedius* Harlan, 1827, in *Globicephala melas* (Traill)  
 =*F. occulta* Jones and Packard, 1956  
 Subspecies: None  
 Distribution: *Feresa attenuata* Gray, 1875  
 Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—possibly off the coasts of Kerala and Tamil Nadu; Maldives; Pakistan—possibly off the Mekran coast; Sri Lanka—Trincomalee, Beruwala, Mirissa, Kottegoda, also seen in east, south, northeast, southwest, and west coasts]  
 Comments: There are no records of this species off the coast of India. However, individuals have been sighted off the northern coast of Sri Lanka making it possible that it may also occur in the waters of India. See Ilangakoon (2002) for distribution records off Sri Lanka
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**Genus *Globicephala* Lesson, 1828**

**Pilot Whales**

**484. *Globicephala macrorhynchus* Gray, 1846**

1846. *Globicephala macrorhynchus* Gray, Zool. Erebus and Terror, 1, Mamm.:33

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Short-finned Pilot Whale

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Type locality: Southern Seas

Synonyms: *Globicephala macrorhyncha* Gray, 1846

*Globicephalus indicus* Blyth, 1852

Subspecies: None

Distribution: *Globicephala macrorhynchus* Gray, 1846

Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—along the coasts of Maharashtra, Tamil Nadu, and West Bengal (and also in Hooghly river and Serampur); Maldives; Pakistan—Off Mekaran; Sri Lanka—Trincomalee, Colpetty Beach in Colombo, also seen in east and west coasts]

Comments: See Ilangakoon (2002) for distribution records off Sri Lanka

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**Genus *Grampus* Gray, 1828**

**Risso's Dolphin**

**485. *Grampus griseus* (G. Cuvier, 1812)**

1812. *Delphinus griseus* G. Cuvier, Ann. Mus. H. N. Paris, 19:14

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Risso's Dolphin (Grey Dolphin)

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Type locality: "Envoye de Brest", Finistere, France

Synonyms: *Delphinus griseus* G. Cuvier, 1812

=*G. cuvieri* Gray, 1846

*Globicephalus rissoi* Blyth, 1859

Subspecies: None

Distribution: *Grampus griseus* (G. Cuvier, 1812)

Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans and Chittagong; India—along the coasts of Tamil Nadu; Maldives; Pakistan—Off the Mekaran Coast; Sri Lanka—Trincomalee, Beruwala, Negomo, Mirissa, Kottogoda, Gandara, Hikkaduwa, Ambalangoda, Dondra, Tangalle, also seen in east, west, south, southwest, and northeast coasts]

Comments: See Ilangakoon (2002) for distribution records off Sri Lanka. In Indian waters, it is known from a single specimen caught off the coast of Tamil Nadu (Sathasivam 2004)

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**Genus *Lagenodelphis* Fraser, 1956**

**Fraser's Dolphin**

**486. *Lagenodelphis hosei* Fraser, 1956**

1956. *Lagenodelphis hosei* Fraser, Sarawak Mus. J., n. s., 8(7):496

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Fraser's Dolphin (Sarawak Dolphin)

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- Type locality: Collected at the mouth of Lutong River, Baram, Borneo
- Synonyms: None
- Subspecies: None
- Distribution: *Lagenodelphis hosei* Fraser, 1956  
Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh, India—possibly off the coast of Kerala and Tamil Nadu; Maldives; Pakistan; Sri Lanka—Trincomalee, Mirissa, Negombo, Beruwala, also seen in east, west, and south coasts]
- Comments: There are no records of this species off the coast of India. However, individuals have been sighted off the northern coast of Sri Lanka (Ilankoon 2002) making it possible that it may also occur in the waters of India
- 

**Genus *Orcaella* Gray, 1866**

**Irrawaddy Dolphin**

**487. *Orcaella brevirostris* (Owen, 1866)**

1866. *Phocaena (Orca) brevirostris* Owen, Trans. Zool. Soc. London, 6, 1:24

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Irrawady Dolphin

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- Type locality: Visakhapatnam harbour in Bay of Bengal
- Synonyms: *Phocaena (Orca) brevirostris* Owen, 1866  
*Orcella fluminalis* Anderson, 1871
- Subspecies: None
- Distribution: *Orcaella brevirostris* (Owen, 1866)  
Bay of Bengal [Bangladesh—Off the coast of Sunderbans; India—Off the coast of Andhra Pradesh, Tamil Nadu, West Bengal, Orissa, and river Ganges]
- Comments: This taxon has been reviewed by Marsh et al. (1989). Belongs to the Ayeyarwady River subpopulation
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**Genus *Orcinus* Fitzinger, 1860**

**Killer Whale**

**488. *Orcinus orca* (Linnaeus, 1758)**

1758. *Delphinus orca* Linnaeus, Syst. Nat. 10th ed. 1:77

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Killer Whale

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Type locality:	European seas
Synonyms:	<i>Delphinus orca</i> Linnaeus, 1758
Subspecies:	None
Distribution:	<i>Orcinus orca</i> (Linnaeus, 1758) Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—Off the coast of Andaman and Nicobar Islands, Gujarat, Lakshadweep Islands, and Tamil Nadu; Maldives; Pakistan; Sri Lanka—Negombo in the west coast]
Comments:	This taxon has been reviewed by Heyning and Dahlheim (1988). See Ilangakoon (2002) for distribution records off Sri Lanka

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**Genus *Peponocephala* Nishiwaki and Norris, 1966**

**Melon-headed Whale**

**489. *Peponocephala electra* (Gray, 1846)**

1846. *Lagenorhynchus electra* Gray, Zool. Erebus and Terror, 1, Mamm.:35

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Melon-headed Whale

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Type locality:	Unknown
Synonyms:	<i>Lagenorhynchus electra</i> Gray, 1846 <i>Delphinus (Lagenorhynchus) fusiformis</i> Owen, 1866
Subspecies:	None
Distribution:	<i>Peponocephala electra</i> (Gray, 1846) Arabian Sea, Bay of Bengal, and the Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—Off the coast of Andhra Pradesh and Nicobar Islands; Maldives; Pakistan—Mekran coast along Sonmiani Beach, Cape Monze, and Rehri Creek; Sri Lanka—Negombo, Beruwala, Mirissa, Kottegoda, also seen in west, south, southwest, and northeast coasts]
Comments:	Earlier included under genus <i>Lagenorhynchus</i> Gray, 1846 (Ellerman and Morrison-Scott 1951) that was later shifted to a distinct genus <i>Peponocephala</i> following Nishiwaki and Norris (1966). See Ilangakoon (2002) for distribution records off Sri Lanka

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## Genus *Pseudorca* Reinhardt, 1862

### False Killer Whales

#### 490. *Pseudorca crassidens* (Owen, 1846)

1846. *Phocaena crassidens* Owen, British Fossil Mamm. and Birds, 516

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#### False Killer Whale

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Type locality:	Lincolnshire Fens, near Stamford, England
Synonyms:	<i>Phocaena crassidens</i> Owen, 1846
Subspecies:	None
Distribution:	<i>Pseudorca crassidens</i> (Owen, 1846) Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—Off the coast of Tamil Nadu, Maharashtra, Andaman Islands, and Kerala; Maldives; Pakistan—Karachi coast and Indus river; Sri Lanka—Velanai Island near Katys, Muttur near Trincomalee, Godawaya, Beruwala, Mirissa, Galle Face in Colombo, also seen in other parts of east, north, south, west, southwest, and the northeast coasts]
Comments:	See Ilangakoon (2002) for distribution records off Sri Lanka

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## Genus *Sousa* Gray, 1866

### Indo-Pacific Humpback Dolphin

Though studies suggest the presence of two or more species under this genus (Rice 1998; Jefferson and Karczmarski 2001; Frere et al. 2008), presently the Indo-Pacific Humpback Dolphin is divided into two morphologically distinct forms namely plumbea-type and chinensis-type pending further taxonomic and molecular studies.

#### 491. *Sousa chinensis* (Osbeck, 1765)

1765. *Delphinus chinensis* Osbeck, Reise nach Ostind. China Rostock, 1:7

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#### Indopacific Humpback Dolphin

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Type locality:	Zhujiang Kou (mouth of Canton River), Guangdong Province, China
Synonyms:	<i>Delphinus chinensis</i> Osbeck, 1765 <i>Delphinus sinensis</i> F. Cuvier, 1835 = <i>Sotalia sinensis</i> F. Cuvier, 1835 <i>Delphinus plumbeus</i> F. Cuvier, 1829 = <i>Sotalia plumbea</i> F. Cuvier, 1829 <i>Delphinus (Steno?) lentiginosus</i> Owen, 1866 = <i>Sotalia lentiginosus</i> Owen, 1866 <i>Delphinus (Steno) maculiventer</i> Owen, 1866 <i>Sotalia fergusonii</i> Lydekker, 1903
Subspecies:	None
Distribution:	<i>Sousa chinensis</i> (Osbeck, 1765) Bay of Bengal, Arabian Sea, and Indian Ocean [Bangladesh—Off the coast of Sunderbans and Chittagong; India—along the coasts of Andhra Pradesh, Kerala, Orissa, Tamil Nadu, Bay of Bengal, off the coast of Andaman Islands, and mouth of Ganges; Pakistan—Mekran coast, near Gwadur, Sonmiani Lagoon, and Indus Delta; Sri Lanka—Mannar and Dutch Bay on the north-west coast]

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**Indopacific Humpback Dolphin**

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Comments: Ellerman and Morrison-Scott (1951) and Pilleri and Gahr (1973-74) considered the taxa *plumbea* F. Cuvier, 1829, *lentiginosa* Owen, 1866 and *sinensis* F. Cuvier, 1835 to be distinct. However, later workers (Mitchell 1975; Corbet and Hill 1992; Mead and Brownell 1993) included these taxa under *Sousa chinensis* (Osbeck, 1765). This taxon has been however, of late, very rarely sighted along the Sri Lankan coast (Ilankoon 2002)

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**Genus *Stenella* Gray, 1866****Oceanic Dolphins****492. *Stenella longirostris* (Gray, 1828)**1828. *Delphinus longirostris* Gray, Spic. Zool. 1:1

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**Gray's Spinner Dolphin**

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Type locality: Unknown  
 Synonyms: *Delphinus longirostris* Gray, 1828  
 Subspecies: *Stenella longirostris longirostris* (Gray, 1828)  
 Distribution: *Stenella longirostris longirostris* (Gray, 1828)  
 Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—Off the coast of Andaman and Nicobar Islands, Andhra Pradesh, Kerala, Maharashtra, and Tamil Nadu; Maldives; Pakistan; Sri Lanka—Kandakuliya on the northwest coast, Chilaw, Colombo, Negombo and Beruwala on the west coast, Hikkaduwa, Galle, Mirissa, Dondra, Gandara, Kottegoda and Kirindi on the south coast, and Trincomalee on the east coast]  
 Comments: This taxon has been reviewed by Perrin (1975, 1990, 1998). See Ilankoon (2002) for distribution records off Sri Lanka

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**493. *Stenella coeruleoalba* (Mayen, 1833)**1833. *Delphinus caeruleo-albus* Mayen, Nova Acta Acad. Caes. Nat. Curios., 16(2):609

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**Striped Dolphin**

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Type locality: South Atlantic ocean near Rio de la Plata, off the coast of Argentina and Uruguay  
 Synonyms: *Delphinus caeruleo-albus* Mayen, 1833  
 =*Stenella caeruleoalba* Mayen, 1833  
 ?*Prodelphinus petersii* Lutken, 1889  
 Subspecies: None  
 Distribution: *Stenella coeruleoalba* (Mayen, 1833)  
 Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—possibly off the coast of Kerala and Tamil Nadu; Maldives; Pakistan; Sri Lanka—Negombo and Beruwala in the west coast, Trincomalee in the east coast, Hikkaduwa, Mirissa and Kottegoda in the south coast, also observed on the southwest and northeast coasts]  
 Comments: This species has been revised by Mitchell (1970) and Perrin et al. (1981, 1987). There are no records of this species off the coast of India. However, individuals have been sighted off the northern coast of Sri Lanka (Ilankoon 2002) making it possible that it may also occur in the waters of India

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**494. *Stenella attenuata* (Gray, 1846)**1846. *Steno attenuatus* Gray, Zool. Voy. H. M. S. "Erebus and Terror", 1:44

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**Pantropical Spotted Dolphin**

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- Type locality: Unknown
- Synonyms: *Steno attenuatus* Gray, 1866  
*Delphinus velox* Cuvier, 1829 (considered *nomen oblitum* by Perrin et al. 1987)  
*Delphinus malayanus* Lesson, 1826  
*Stenella malayana* (Lesson, 1826)
- Subspecies: *Stenella attenuata attenuata* (Gray, 1846)
- Distribution: *Stenella attenuata attenuata* (Gray, 1846)  
Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—Off the coast of Tamil Nadu and West Bengal; Maldives; Pakistan; Sri Lanka—Negombo, Beruwala, Galle, Mirissa, Kottogoda and Gandara of west and southern coasts, also recorded from east, southwest, northeast, northern, and northwestern coasts]
- Comments: The taxon *Delphinus velox* Cuvier, 1829 has been included under *Stenella malayana* (Lesson, 1826) (Ellerman and Morrison-Scott 1951). However, both the taxa are presently included under this taxon (Corbet and Hill 1992; Mead and Brownell 2005). See Ilangakoon (2002) for distribution records off Sri Lanka
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**Genus *Steno* Gray, 1846****Rough-toothed Dolphin****495. *Steno bredanensis* (G. Cuvier in Lesson, 1828)**1828. *Delphinus bredanensis* G. Cuvier in Lesson, Hist. Nat. Gen. Part. Mamm. Oiseaux, 1:206

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**Rough-toothed Dolphin**

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- Type locality: European seas
- Synonyms: *Delphinus bredanensis* G. Cuvier in Lesson, 1828  
*Delphinorhynchus bredanensis* Lesson, 1828
- Subspecies: None
- Distribution: *Steno bredanensis* (Lesson, 1828)  
Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—along the coast of Tamil Nadu, off the coast of Nicobar Islands; Maldives; Pakistan—Karachi coast; Sri Lanka—Beruwala, Negombo on the west coast, Trincomalee on the east coast, and Mirissa on the south coast]
- Comments: See Ilangakoon (2002) for distribution records off Sri Lanka
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**Genus *Tursiops* Gervais, 1855****Bottle-nosed Dolphins**

Until recent times, this genus was considered monotypic. Presently, a second species *Tursiops aduncus* (Ehrenberg, 1833) is recognized (Rice 1998; Wang et al. 1999, 2000).

**496. *Tursiops truncatus* (Montagu, 1821)**1821. *Delphinus truncatus* Montagu, Mem. Wernerian Nat. Hist. Soc. Edinburgh, 3:75

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**Common Bottle-nosed Dolphin**

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- Type locality: Duncannon Pool, near Stoke Gabriel, about 5 miles up the river Dart, Devonshire, England
- Synonyms: *Delphinus truncatus* Montagu, 1821  
*Delphinus eurynome* Gray, 1846  
*Delphinus tursio obtusus* Schlegel, 1862 (Renaming of *truncatus*)
- Subspecies: None
- Distribution: *Tursiops truncatus* (Montagu, 1821)  
Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—Off the coast of Kerala, West Bengal, and Andhra Pradesh; Maldives; Pakistan—Mekran coast, Karachi; Sri Lanka—Negombo, Beruwala, Kirinda on the west coast, Galle, Mirissa, Tangalle on the south coast, Trincomalee on the east coast, also seen on north west and north coasts]
- Comments: See Ilangakoon (2002) for distribution records off Sri Lanka
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**497. *Tursiops aduncus* (Ehrenberg, 1833)**1833. *Delphinus aduncus* Ehrenberg in Hemprich and Ehrenberg, Symb. Phys. Mamm., decas II, folio k, ftn. 1

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**Indo-Pacific Bottle-nosed Dolphin**

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- Type locality: Belhosse Island, Red Sea
- Synonyms: *Delphinus aduncus* Ehrenberg in Hemprich and Ehrenberg, 1833  
*Delphinus perniger* Elliot in Blyth, 1848  
*Delphinus (Steno) gadamu* Owen, 1866  
*Tursiops fergusonii* Lydekker, 1903  
*Tursiops dawsonii* Lydekker, 1909
- Subspecies: None
- Distribution: *Tursiops aduncus* (Ehrenberg, 1833)  
Arabian Sea, Bay of Bengal, and Indian Ocean [coastal waters of Bangladesh, India, Pakistan, and Sri Lanka]
- Comments: Ellerman and Morrison-Scott (1951) considered the taxon *aduncus* (Ehrenberg, 1833) distinct; however, it was included under *T. truncatus* (Montagu, 1821) by Ross and Cockroft (1990), Corbet and Hill (1992), and Mead and Brownell (1993). Presently, considered distinct (Rice 1998; LeDuc and Curry 1997; Wang et al. 1999, 2000; Mead and Brownell 2005; Jayasankar et al. 2008)
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**Family Phocoenidae Gray, 1825**

**Genus *Neophocaena* Palmer, 1899**

**Porpoises**

**498. *Neophocaena phocaenoides* (G. Cuvier, 1829)**

1829. *Delphinus phocaenoides* G. Cuvier, Regne Anim., Nouv. ed., 2. v. 2:i-xv+1-406, page(s)291

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Finless Porpoise

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- Type locality: Said to be from the Cape of Good Hope, where the animal does not occur according to G. Allen. Perhaps from Malabar Coast (G. Allen, 1938)
- Synonyms: *Delphinus phocaenoides* G. Cuvier, 1829  
 =*Neomeris phocaenoides* G. Cuvier, 1829  
*Delphinapterus molagan* Owen, 1869  
*Neomeris kurachiensis* Murray, 1884
- Subspecies: *Neophocaena phocaenoides phocaenoides* (G. Cuvier, 1829)
- Distribution: *Neophocaena phocaenoides phocaenoides* (G. Cuvier, 1829)  
 Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh—Off the coast of Sunderbans; India—Kerala, Tamil Nadu, Lakshadweep islands, Maharashtra, Orissa, Karnataka, off the coast of Andaman and Nicobar Islands; Pakistan—deltaic region of river Indus, Karachi coast, Gadani Bay in Lasbela, Mekran coast, Sonmiani Lagoon in Lasbela, Hingol river in Mekran; Sri Lanka—Wadge Bank]
- Comments: Ellerman and Morrison-Scott (1951) included this taxon under the genus *Neomeris* Gray, 1846, but was included under *Neophocaena* Palmer, 1899 by later workers (Rice 1977; Pilleri and Chen 1980; Corbet and Hill 1992; Mead and Brownell 1993) as “*Neomeris* is thought to have been a polytyp”. This taxon has been extensively studied and reviewed by Amano et al. (1992), Pilleri and Chen (1980), Pilleri and Gahr (1972, 1975, 1980), and Rice (1977)
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**Family Physeteridae Gray, 1821**

**Genus *Physeter* Linnaeus, 1758**

**Sperm Whale**

Monotypic genus.

**499. *Physeter macrocephalus* Linnaeus, 1758**

1758. *Physeter macrocephalus* Linnaeus, Syst. Nat. 10th ed., 1:76

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Sperm Whale

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- Type locality: “In Oceano Europaeo”
- Synonyms: *Physeter catodon* Linnaeus, 1758
- Subspecies: None
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**Sperm Whale**

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- Distribution: *Physeter macrocephalus* Linnaeus, 1758  
Arabian Sea, Bay of Bengal, Indian Ocean [Bangladesh; India—Off the coast of Andaman and Nicobar Islands, Lakshadweep islands, Tamil Nadu, Gujarat, Puducherry and Kerala; Maldives; Pakistan; Sri Lanka—Mannar on the north-western coast, Pitipana, Negombo, Hendala, Chilaw, Dehiwala on the west coast, Induruwa, Galle on the southern coast, and Trincomalee on the east coast]
- Comments: Few workers preferred the nomen *catodon* Linnaeus, 1758 to represent this taxon (Ellerman and Morrison-Scott 1951); however, though both appear on the same page of the publication the nomen *macrocephalus* Linnaeus, 1758 is used for this taxon as it has line priority over the other nomen (Perrin 2009). This taxon has been reviewed by Hershkovitz (1966), Schevill (1986, 1987), Holthuis (1987), and Rice (1989). See Ilangakoon (2002) for distribution records off Sri Lanka
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**Family Kogiidae Miller, 1923****Genus *Kogia* Gray, 1846****Small Sperm Whales****500. *Kogia breviceps* (Blainville, 1838)**1838. *Physeter breviceps* Blainville, Ann. Franc. etr. Anat. Phys., 2:337

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**Pygmy Sperm Whale**

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- Type locality: Cape of Good Hope, South Africa
- Synonyms: *Physeter breviceps* Blainville, 1838  
*Physeter (Euphysetes) simus* Owen, 1866
- Subspecies: None
- Distribution: *Kogia breviceps* (Blainville, 1838)  
Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—Off the coast of Andaman Islands, Kerala, and Andhra Pradesh; Maldives; Pakistan; Sri Lanka—Trincomalee on the east coast, Beruwala, Moratuwa, Negombo on the west coast, Kottogoda on the southern coast, also seen on the southwest, northeast, and other areas of the south, east, and west coasts]
- Comments: This species has been reviewed by Caldwell and Caldwell (1989). See Ilangakoon (2002) for distribution records off Sri Lanka
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**501. *Kogia sima* (Owen, 1866)**1866. *Physeter (Euphysetes) simus* Owen, Trans. Zool. Soc. London, 6(1):30

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**Dwarf Sperm Whale**

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- Type locality: Waltair (Madras Presidency), Andhra Pradesh, India
- Synonyms: *Physeter (Euphysetes) simus* Owen, 1866
- Subspecies: None
- Distribution: *Kogia sima* (Owen, 1866)  
Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—along the coasts of Andhra Pradesh, Kerala, and Tamil Nadu; Maldives; Pakistan; Sri Lanka—Negombo, Beruwala on the west coast, Galle and Kottogoda on the south coast, Trincomalee on the east coast, also seen on other areas of east, west, south, northwest, west, and southwest coasts]
- Comments: Ellerman and Morrison-Scott (1951) included this species under *Kogia breviceps* (Blainville, 1838), but was considered distinct by later workers (Handley 1966; Corbet and Hill 1992; Mead and Brownell 1993; Chivers et al. 2005). This taxon was reviewed and studied by Nagorsen (1985) and Caldwell and Caldwell (1989). See Ilangakoon (2002) for distribution records off Sri Lanka
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**Family Platanistidae Gray, 1846****Genus *Platanista* Wagler, 1830****River Dolphins****502. *Platanista gangetica* (Roxburgh, 1801)**1801. *Delphinus gangeticus* Roxburgh, Asiat. Res. Trans. Soc. (Calcutta ed.), 7:170

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**South Asian River Dolphin**

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- Type locality: Hoogly River, Ganges river delta, West Bengal, India
- Synonyms: *Delphinus gangetica* Lebeck, 1801  
*Delphinus gangeticus* Roxburgh, 1801  
*Delphinus rostratus* Shaw, 1801  
=*Delphinus shawensis* Blainville in Desmarest, 1817 (renaming of *rostratus*)  
=*Susu platanista* Lesson, 1828  
*Platanista indi* Blyth, 1859
- Subspecies: *Platanista gangetica gangetica* (Roxburgh, 1801)  
*Platanista gangetica minor* Owen, 1853
- Distribution: Endemic to South Asia  
*Platanista gangetica gangetica* (Roxburgh, 1801)  
Endemic to South Asia  
Bangladesh—Meghna and its tributaries  
Bhutan—East Bhutan in Manas and Puna Tsang Chu  
India—Brahmaputra, Ganges, Son, Hooghly, Karnapuhli, and Bay of Bengal  
Nepal—Tributaries of Ganges  
*Platanista gangetica minor* Owen, 1853  
Endemic to Pakistan, Indus river, northern Sindh, Chenab, Sutlej (although the Sutlej populations seem to have disappeared)
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**South Asian River Dolphin**

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Comments: This species has been reviewed by Pilleri and Gihir (1971, 1976a, b), Kasuya (1973), van Bree (1976), Reeves and Brownell (1989), and Mead and Brownell (1993). Some authorities treated the taxon *minor* Owen, 1853 as distinct species following Pilleri and Gihir (1971). In Pakistan, the taxon *minor* Owen 1853 has been reported from Chashma and Taunsa, Taunsa and Guddu, and Guddu and Sukkur Barrages, although stray records exist of individuals above and below the Chashma and Sukkur Barrage areas (Reeves and Chaudhry 1998; Braulik 2006)

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**Family Ziphiidae Gray, 1865****Genus *Indopacetus* Moore, 1968****Tropical Bottlenose Whale**

It is opined that the sightings of this taxon in the tropical waters have been mistaken to those of *Hyperoodon planifrons* Flower, 1882 (Dalebout et al. 2003).

**503. *Indopacetus pacificus* (Longman, 1926)**

1926. *Mesoplodon pacificus* Longman, Mem. Queensl. Mus., 8(3):266–278, pl. 43

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**Indo-Pacific Beaked Whale (Longman's Beaked Whale)**

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Type locality: Found at Mackay (Queensland, Australia)  
 Synonyms: *Mesoplodon pacificus* Longman, 1926  
 Subspecies: None  
 Distribution: *Indopacetus pacificus* (Longman, 1926)  
 Indian Ocean [Maldives—Off the coast of Maldives; Sri Lanka—Off the coast of Colombo, on the southwest coast near Beruwala, and on the southern coast]  
 Comments: Earlier included under *Mesoplodon* Gervais, 1850 (Heyning 1989a; Mead 1989), presently included under *Indopacetus* Moore, 1968 (Rice 1998; Mead and Brownell 2005). This species has been reviewed by Mead 1989. See Ilangakoon (2002) for distribution records off Sri Lanka

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**Genus *Mesoplodon* Gervais, 1850****Mesoplodont Whales****504. *Mesoplodon densirostris* (de Blainville, 1817)**

1817. *Delphinus densirostris* deBlainville, Nouv. Dict. Hist. Nat., Nouv. ed., 9:178

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**Blainville's Beaked Whale**

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Type locality: Unknown  
 Synonyms: *Delphinus densirostris* Blainville, 1817  
 Subspecies: None  
 Distribution: *Mesoplodon densirostris* (Blainville, 1817)  
 Arabian Sea and Indian Ocean [India—Off the coast of Nicobar Islands; Pakistan; Sri Lanka—deep waters of the Indian Ocean]  
 Comments: This species has been reviewed by Mead (1989). May probably occur in the coastal waters off the coast of Bangladesh. See Ilangakoon (2002)

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**505. *Mesoplodon ginkgodens* Nishiwaki and Kamiya, 1958**1958. *Mesoplodon ginkgodens* Nishiwaki and Kamiya, Sci. Rep. Whales Res. Inst. (Tokyo), 13:53

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**Ginkgo-toothed Beaked Whale**

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- Type locality: Oiso Beach, Sagami Bay, near Tokyo, Japan  
 Synonyms: *Mesoplodon hotuala* Deraniyagala, 1963  
 Subspecies: None  
 Distribution: *Mesoplodon ginkgodens* Nishiwaki and Kamiya, 1958  
                   Indian Ocean [India—possibly off the coast of Kerala and Tamil Nadu; Sri Lanka—Ratmalana on the west coast and Trincomalee on the east coast]  
 Comments: This species has been reviewed by Mead 1989. There are no records of this species off the coast of India. However, individuals have been sighted off the northern coast of Sri Lanka making it possible that it may also occur in the waters of India. May probably occur off the coast of Bangladesh. See Ilangakoon (2002) for distribution records off Sri Lanka
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**Genus *Ziphius* G. Cuvier, 1823****Cuvier's Beaked Whale****506. *Ziphius cavirostris* G. Cuvier, 1823**1823. *Ziphius cavirostris* G. Cuvier, Rech. Oss. Foss., Nouv. ed., 5(1):350, 352, pl. 7

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**Goosebeak Whale (Cuvier's Beaked Whale)**

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- Type locality: Near Fos, Bonches-du-Rhone, France  
 Synonyms: *Ziphius cavirostris indicus* Deraniyagala, 1945  
 Subspecies: None  
 Distribution: *Ziphius cavirostris* G. Cuvier, 1823  
                   Arabian Sea, Bay of Bengal, and Indian Ocean [Bangladesh; India—Lakshadweep Islands and Tamil Nadu (at Porto Novo); Maldives; Pakistan—Near Lasbela; Sri Lanka—Southern coast, Negombo and other areas on the west coast, Trincomalee, and other areas on the east coast]  
 Comments: This species has been reviewed by Heyning (1989b). See Ilangakoon (2002) for distribution records off Sri Lanka
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