



Animals of India

MAMMALS

J.R.B. Alfred
A.K. Das
A.K. Sanyal



ENVIS Centre
Zoological Survey of India

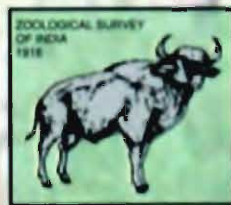






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CITATION

Alfred, J.R.B., Das, A.K. and Sanyal, A.K. 2006. *Animals of India : Mammals*. ENVIS—Zool. Surv. India, Kolkata : 1-236

Published : February, 2006

ISBN 81-8171-094-0

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PRICE

India Rs. 1,250.00

Foreign \$ 75; £ 60

Published at the ENVIS Centre by the Director, Zoological Survey of India, M-Block, New Alipore, Kolkata-700 053 and funded by the Ministry of Environment & Forest, Govt. of India. Printed at Calcutta Repro Graphics, Kolkata-700 006.

PREFACE

India is an abode of about ninety thousand animal species with innumerable variety and variability. Amongst these, about five thousand species belong to chordates and the remaining are invertebrates. This animal diversity of the country has been dealt with in ample details in a book, *Faunal Diversity in India* published by the ENVIS Centre of the Zoological Survey of India in 1998. Information and data contained in that book on species diversity are mostly numerical. To fill that gap the ENVIS Centre is now actively engaged in preparing a checklist of all the animal species of India along with brief diagnostic features, habit and habitats, and distribution range of each of them. In this connection, the ENVIS Centre envisages to bring out a series of publications under the title "*Animals of India*" to deal with Protozoa to Mammalia of this country. The present publication is the first part of this series, dealing with all the mammalian species of India.

The mammals of the world belong to 4629 species under 1135 genera, 136 families and 26 orders (Wilson and Reeder, 1993). Their Indian counterpart includes 401 species, representing 180 genera, 45 families and 13 orders, constituting about 8.6 per cent of the global mammalian species. The checklist of Indian mammals incorporated in this book is primarily based on Wilson and Reeder (1993) and Alfred *et al.* (2000). In the checklist conservation status of all these species is also given as per IUCN (2003), Indian Wildlife (Protection) Act, 1972, Indian Red Data Book (1994), CITES and CAMPS. In addition to these, salient diagnostic features, distribution, endemism, habits and habitats of all the species are also incorporated.

We like to record our sincere thanks to Dr. V.C. Agrawal, Ex-Joint Director and Ex-Emeritus Scientist, Zoological Survey of India for critically going through the manuscript and offering useful suggestions for its improvement. For the preparation of this book photographs of mammals have been collected from several institutes, scientists and naturalists who are duly acknowledged under the caption of the respective photograph. We would like to record our thanks to all of them. We would also like to thank Shri. T. P. Bhattacharya, Zoological Survey of India, Kolkata for providing many useful literature, illustrations and photographs for the book and to Rati Ram, Publication and Production Officer, ZSI, Kolkata for his unstinted co-operation in printing this book.

Financial support for the present publication has been provided by the Focal point of the ENVIS in the Ministry of Environment & Forests, Government of India, to whom we are extremely grateful.

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Photo Courtesy : Sandeep K. Tewari

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INTRODUCTION

In taxonomy, all the living organisms excluding plants, fungi, protists and microbes are placed under the Animal Kingdom. Animals are not only diverse in shape, size and morphological features but also well capable of adapting themselves to all major habitats in terrestrial and aquatic ecosystems. However, all animals can not survive in all habitats. Some of them are fairly cosmopolitan in distribution while others are confined to some particular habitats and few others change their habitats during the different parts of their life cycle. It is well known that distribution of animals is dependant upon the diversity of habitats, topography of the land mass, type of vegetation available to them and climatic conditions under which they are exposed. Therefore, it is quite inevitable that more diverse is the geodiversity, ecodiversity and climate of a country or a region more diverse is its vegetation and consequently more rich is its animal diversity.

In this respect India is an ideal abode for a large number of animal species and subspecies since it exhibits dramatic contrasts of geomorphology and climate from the perpetual snow-covered mountain ranges of the Himalaya in the north to the arid deserts of Rajasthan and Gujarat in the west and from 100 mm annual rainfall in the deserts of the western part of Rajasthan to about 5000 mm annual rainfall in the Cherrapunji hills in the North-east India. India also possesses considerable altitudinal variation from more than 7000 m in the high peaks of the Himalaya to zero level in the sea coasts. Climates of this country also vary from nearly arctic to tropical. In view of above, India is blessed with rich habitat and ecosystem diversity with high mountain ranges, 16 types of forests, 5 types of grasslands, sand, salt and cold deserts, semi-arid regions, 10 predominant types of fresh and brackish water wetlands, mangrooves, coral reefs, sea coasts, oceans, islands and archipelago (Alfred, Das and Sanyal, 2001). That is why India with only 2 per cent of the land mass of the world could harbour 7.25 per cent of the world's known animal species (Alfred, Das and Sanyal, 1998).



Mammals

In the kingdom Animalia the mammals which include human species are treated as the "highest" taxonomic group in the evolutionary hierarchy. They are so named as they possess mammary glands. In females these glands become functional for producing milk to nourish their young. In fact, females of each and every mammal species including the egg-laying mammals like the Duck-billed Platypus possess mammae or teats to suckle their young ones. Another characteristic feature of mammals is the presence of hairs on their body at least during some part of their life cycle.

As in other animals, the size of mammals varies to a great extent. The smallest mammal of the world is the Pygmy White-toothed Shrew, *Suncus etruscus* whose head and body length is 3.5-4.8 cm, tail 2.5-3.0 cm and weight about 2.5 gm. Some pipistrelles (bats) and Painted bats are also very small in size with head and body length about 3.5 cm and weight about 3 gm. To the contrary, the largest living mammal of the world, the Blue Whale, *Balaenoptera musculus* may be as large as 2440 cm and maximum weight recorded as 112 tonnes. Interestingly, both the largest and the smallest mammals of the globe are found in India.

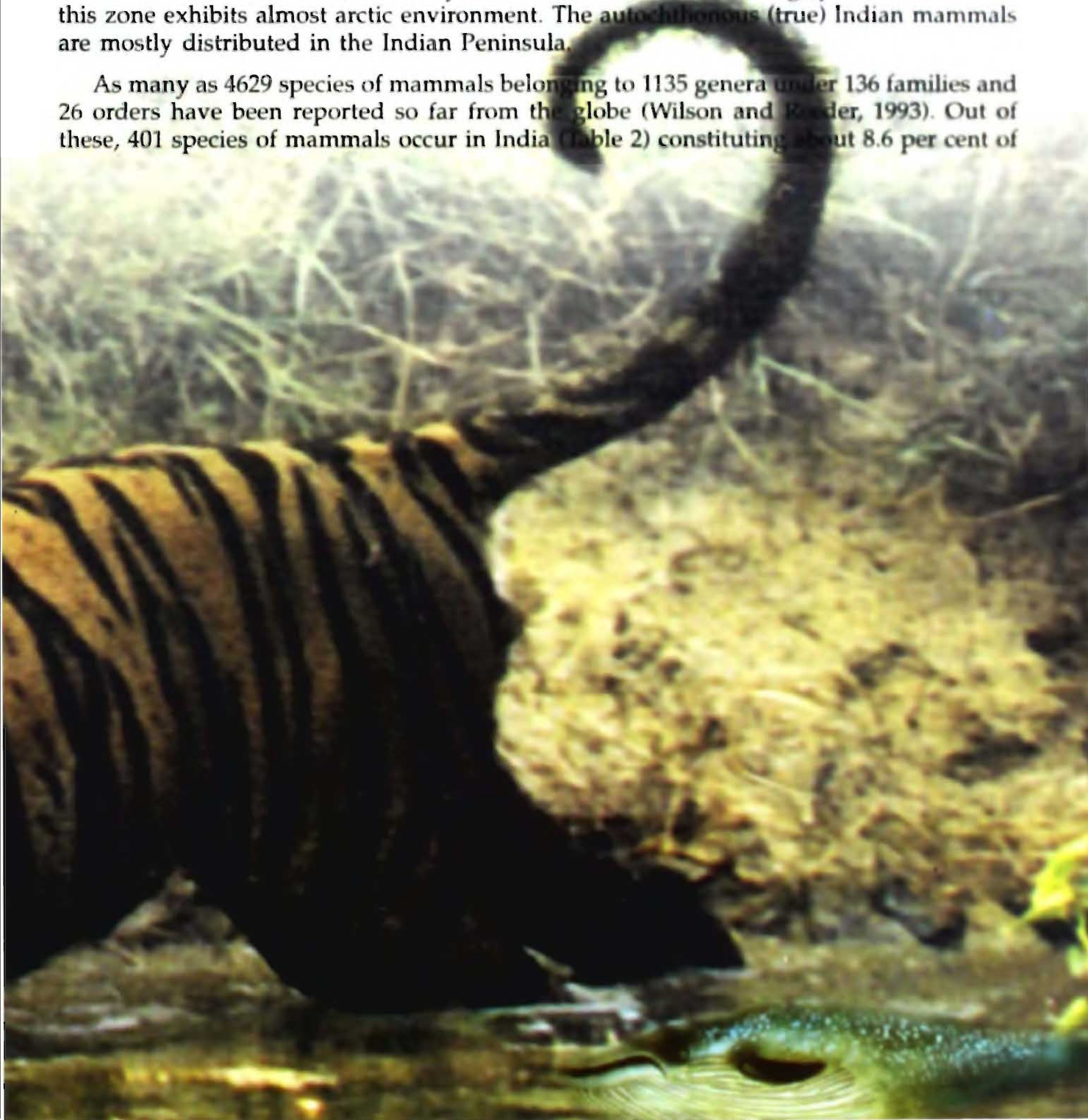


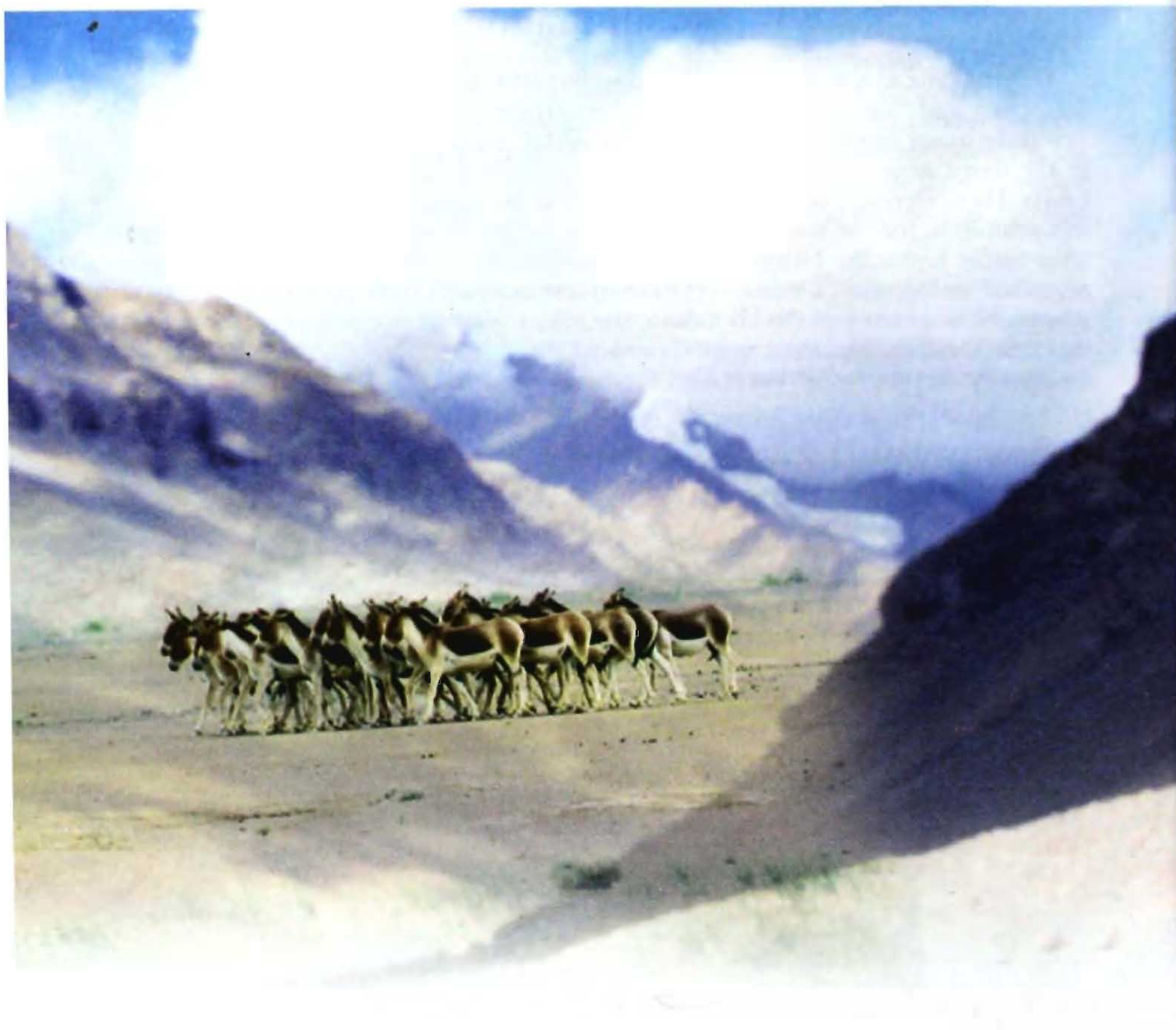


Indian mammals

Indian fauna so also its mammalian counterpart is the admixture of Oriental, Palaearctic, Ethiopian and "true Indian" elements since this country is located at the confluence of first three major biogeographical realms. Oriental elements are predominantly represented in the forest zone of the Eastern Himalaya as well as in the rainforests of the Western Ghats. These elements diminish gradually towards the western part of the Himalaya until in Kashmir, to further west of which they are not the principal constituents. Gorge of the river Sutlej forms the biogeographical transition zone. Oriental elements are generally restricted to the east of this river, in the west of which Ethiopian elements are found. Above the snow line of the Himalaya, the mammalian fauna is largely Palaearctic since this zone exhibits almost arctic environment. The autochthonous (true) Indian mammals are mostly distributed in the Indian Peninsula.

As many as 4629 species of mammals belonging to 1135 genera under 136 families and 26 orders have been reported so far from the globe (Wilson and Reeder, 1993). Out of these, 401 species of mammals occur in India (Table 2) constituting about 8.6 per cent of





the global mammalian species. The Indian mammals represent 180 genera, 45 families and 13 orders and include 45 species endemic to this country (Table 1). A consolidated systematic list of these mammals and their current conservation status as per IUCN (2003), Indian Red Data Book (1994), Indian Wildlife (Protection) Act, 1972, CITES and CAMP (1997) is presented in Table 2. List of the Indian endemic mammals and their distribution are also accommodated in Table 3. This is to mention here the present list of Indian mammals is primarily based on Wilson and Reeder (1993) and Alfred *et al.* (2002).

In the global scenario rodents constitute the single largest group amongst mammals in number of species followed by bats (Chiroptera). But, in India this is just the reverse as bats represent maximum number of species (113) followed by rodents (104) and these two groups jointly constitute 54.1 per cent of the total Indian mammal species. About 62.2 per cent of the total endemic species of Indian mammals (28 species out of 45) also belong to these two orders. Indian carnivores are also diverse and belong to 59 species followed by Artiodactyls and Cetaceans with 31 species and 28 species respectively.



Table 1. Order-wise Taxic diversity of Indian mammals

Sl. No.	Name of Order	No. of Family	No. of Genera	No. of Species	No. of Endemic species
1.	Insectivora	3	11	30	7
2.	Scandentia	1	2	3	2
3.	Chiroptera	8	35	113	11
4.	Primates	3	6	15	3
5.	Carnivora	7	34	59	4
6.	Cetacea	7	21	28	-
7.	Sirenia	1	1	1	-
8.	Proboscidea	1	1	1	-
9.	Perissodactyla	2	2	3	-
10.	Artiodactyla	5	20	31	1
11.	Pholidota	1	1	2	-
12.	Rodentia	4	43	104	17
13.	Lagomorpha	2	3	11	-
Total		45	180	401	45



Table 2. Systematic list of Indian mammals and their conservation status

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
	Order INSECTIVORA Family ERINACEIDAE					
1.	<i>Hemiechinus collaris</i> Indian Long-eared Hedgehog	-	Sch. V	-	-	LRlc (Nationally & Globally)
2.	<i>Hemiechinus micropus</i> Indian Hedgehog	-	Sch. V	-	-	LRlc (Nationally & Globally)
*3.	<i>Hemiechinus nudiventris</i> South Indian Hedgehog	VU	-	-	-	NE (Nationally)
	Family SORICIDAE					
*4.	<i>Crocidura andamanensis</i> Andaman White-toothed Shrew	DD	-	-	-	DD (Nationally)
5.	<i>Crocidura attenuata</i> Gray Shrew	-	-	-	-	LRlc (Nationally) DD (Globally)
6.	<i>Crocidura fuliginosa</i> Southeast Asian White-toothed Shrew	-	-	-	-	DD (Nationally & Globally)
7.	<i>Crocidura gueldenstaedtii</i> Gueldenstaedt's White-toothed Shrew	-	-	-	-	-
*8.	<i>Crocidura hispida</i> Andaman Spiny Shrew	EN	-	-	-	EN (Nationally) DD (Globally)
9.	<i>Crocidura horsfieldi</i> Horsfield's Shrew					DD (Nationally & Globally)
*10.	<i>Crocidura jenkinsi</i> Jenkin's Spiny Shrew	DD	-	-	-	DD (Nationally)
*11.	<i>Crocidura nicobarica</i> Nicobar Spriny Shrew	DD	-	-	-	DD (Nationally)
*12.	<i>Crocidura pergrisea</i> Pale Gray Shrew	VU	-	-	-	EN (Nationally) DD (Globally)
13.	<i>Crocidura pullata</i> Miller's White-toothed Shrew					DD (Nationally & Globally)
14.	<i>Feroculus feroculus</i> Kelaart's Long-clawed Shrew	-	-	-	-	VU (Nationally) DD (Globally)
*15.	<i>Suncus dayi</i> Day's Shrew	VU	-	-	-	VU (Nationally)
16.	<i>Suncus etruscus</i> Savi's Pygmy Shrew Pygmy White-toothed Shrew	-	-	-	-	LRlc (Nationally & Globally)
17.	<i>Suncus montanus</i> Ceylon Shrew	VU	-	-	-	VU (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
18.	<i>Suncus murinus</i> Gray Musk Shrew, House Shrew	-	-	-	-	LRlc (Nationally) DD (Globally)
19.	<i>Suncus stoliczkanus</i> Anderson's Shrew	-	-	-	-	LRlc (Nationally) DD (Globally)
20.	<i>Anourosorex squamipes</i> Mole Shrew	-	-	-	-	VU (Nationally) DD (Globally)
21.	<i>Chimarrogale himalayica</i> Himalayan Water Shrew	-	-	-	-	LRnt (Nationally) DD (Globally)
22.	<i>Nectogale elegans</i> Web-footed Water Shrew,	-	-	-	-	VU (Nationally) DD (Globally)
23.	<i>Sorex minutus</i> Eurasian Pygmy Shrew, Lesser Shrew	-	-	-	-	VU (Nationally) DD (Globally)
24.	<i>Sorex thibetanus</i> Tibetan Shrew	-	-	-	-	-
25.	<i>Soriculus caudatus</i> Hodgson's Brown-toothed Shrew	-	-	-	-	VU (Nationally) DD (Globally)
26.	<i>Soriculus leucops</i> Indian Long-tailed Shrew	-	-	-	-	VU (Nationally) DD (Globally)
27.	<i>Soriculus macrurus</i> Arboreal Brown-toothed Shrew	-	-	-	-	VU (Nationally) DD (Globally)
28.	<i>Soriculus nigrescens</i> Himalayan Shrew, Sikkim Long-clawed Shrew Family TALPIDAE	-	-	-	-	VU (Nationally) DD (Globally)
29.	<i>Euroscaptor micrura</i> Himalayan Mole, Eastern Mole	-	-	-	-	
30.	<i>Parascaptor leucura</i> White-tailed Mole Order SCANDENTIA Family TUPAIIDAE	-	-	-	-	VU (Nationally) DD (Globally)
31.	<i>Anathana ellioti</i> Madras Tree Shrew	LRnt	-	-	-	LRnt
32.	<i>Tupaia belangeri</i> Common Tree Shrew	-	-	-	-	LRlc (Nationally) DD (Globally)
*33.	<i>Tupaia nicobarica</i> Nicobar Tree Shrew	EN	-	-	-	EN



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
	Order CHIROPTERA Family PTEROPODIDAE					
34.	<i>Cynopterus brachyotis</i> Lesser Dog-faced Fruit Bat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
35.	<i>Cynopterus sphinx</i> Short-nosed Fruit Bat	-	-	-	-	LRlc (Nationally) DD (Globally)
*36.	<i>Latidens salimalii</i> Salim Ali's Fruit Bat	CR	-	-	-	EN
37.	<i>Megaerops niphanae</i> Niphan's Tail-less Fruit Bat	-	-	-	-	DD
*38.	<i>Pteropus faunulus</i> Nicobar Flying Fox	VU	Sch. V		App. II	VU
39.	<i>Pteropus giganteus</i> Indian Flying Fox	-	-	-	App. II	LRnt
40.	<i>Pteropus hypomelanus</i> Island Flying Fox	-	-	-	-	-
41.	<i>Pteropus melanotus</i> Blyth's Flying Fox	-	Sch. V	-	App. II	DD (Nationally & Globally)
42.	<i>Pteropus vampyrus</i> Malayan Large Flying Fox	-	Sch. V	-	-	DD (Nationally & Globally)
43.	<i>Rousettus leschenaulti</i> Fulvous Fruit Bat	-	-	-	-	LRlc (Nationally) DD (Globally)
44.	<i>Sphaerias blanfordi</i> Blanford's Fruit Bat	-	Sch. V	-	-	DD (Nationally & Globally)
45.	<i>Eonycteris spelaea</i> Dawn Bat	-	-	-	-	VU (Nationally) DD (Globally)
46.	<i>Macroglossus sobrinus</i> Hill Long-tongued Fruit Bat	-	-	-	-	DD (Nationally & Globally)
	Family RHINOPOMATIDAE					
47.	<i>Rhinopoma hardwickei</i> Lesser Mouse-tailed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
48.	<i>Rhinopoma microphyllum</i> Greater Mouse-tailed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
	Family EMBALLONURIDAE					
49.	<i>Saccolaimus saccolaimus</i> Pouch-bearing Bat	-	-	-	-	DD (Nationally & Globally)
50.	<i>Taphozous longimanus</i> Long-winged Tomb Bat	-	-	-	-	LRlc (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
51.	<i>Taphozous melanopogon</i> Black-bearded Tomb Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
52.	<i>Taphozous nudiventris</i> Naked-rumped Tomb Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
53.	<i>Taphozous perforatus</i> Egyptian Tomb Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
54.	<i>Taphozous theobaldi</i> Theobald's Tomb Bat	-	-	-	-	DD (Nationally & Globally)
Family MEGADERMATIDAE						
55.	<i>Megaderma lyra</i> Greater False Vampire	-	-	-	-	LRlc (Nationally) DD (Globally)
56.	<i>Megaderma spasma</i> Lesser False Vampire	-	-	-	-	DD (Nationally & Globally)
Family RHINOLOPHIDAE						
57.	<i>Rhinolophus affinis</i> Intermediate Horse-shoe Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
*58.	<i>Rhinolophus cognatus</i> Andaman Horse-shoe Bat	VU	-	-	-	DD (Nationally & Globally)
59.	<i>Rhinolophus ferrumequinum</i> Greater Horse-shoe Bat	LRnt	-	-	-	VU (Nationally) DD (Globally)
60.	<i>Rhinolophus hipposideros</i> Lesser Horse-shoe Bat	VU	-	-	-	VU (Nationally) DD (Globally)
61.	<i>Rhinolophus lepidus</i> Blyth's Horse-shoe Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
62.	<i>Rhinolophus luctus</i> Woolly Horse-shoe Bat	-	-	-	-	NE
63.	<i>Rhinolophus macrotis</i> Big-eared Horse-shoe Bat	-	-	-	-	NE
*65.	<i>Rhinolophus mitratus</i> Mitre Horse-shoe Bat	DD	-	-	-	VU
65.	<i>Rhinolophus pearsonii</i> Pearson's Horse-shoe Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
66.	<i>Rhinolophus pusillus</i> Least Horse-shoe Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
67.	<i>Rhinolophus rouxii</i> Rufous Horse-shoe Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
68.	<i>Rhinolophus subbadius</i> Little Nepalese Horse-shoe Bat	DD	-	-	-	CR (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
69.	<i>Rhinolophus trifolius</i> Trefoil Horse-shoe Bat	-	-	-	-	DD (Nationally & Globally)
70.	<i>Rhinolophus yunanensis</i> Dobson's Horse-shoe Bat Family HIPPOSIDERIDAE	LRnt	-	-	-	DD (Nationally & Globally)
71.	<i>Coelops frithi</i> Tail-less Leaf-nosed Bat	-	-	-	-	DD (Nationally & Globally)
72.	<i>Hipposideros armiger</i> Great Himalayan Leaf-nosed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
73.	<i>Hipposideros ater</i> Dusky Leaf-nosed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
74.	<i>Hipposideros cineraceus</i> Least Leaf-nosed Bat	-	-	-	-	DD (Nationally & Globally)
75.	<i>Hipposideros diadema</i> Diadem Leaf-nosed Bat	-	-	-	-	NE
*76.	<i>Hipposideros durgadasi</i> Khajuria's Leaf-nosed Bat	VU	-	-	-	NE
77.	<i>Hipposideros fulvus</i> Fulvus Leaf-nosed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
78.	<i>Hipposideros galeritus</i> Cantor's Leaf-nosed Bat, Fawn Leaf-nosed Bat	-	-	-	-	DD (Nationally & Globally)
*79.	<i>Hipposideros hypophyllus</i> Kolar Leaf-nosed Bat	VU	-	-	-	NE
80.	<i>Hipposideros lankadiva</i> Kelaart's Leaf-nosed Bat	-	-	-	-	VU (Nationally) DD (Globally)
81.	<i>Hipposideros larvatus</i> Horsefield's Leaf-nosed Bat	-	-	-	-	DD (Nationally & Globally)
82.	<i>Hipposideros pomona</i> Andersen's Leaf-nosed Bat	-	-	-	-	DD (Nationally & Globally)
*83.	<i>Hipposideros schistaceus</i> Leaf-nosed Bat	DD	-	-	-	DD (Nationally)
84.	<i>Hipposideros speoris</i> Schneider's Leaf-nosed Bat Family VESPERTILIONIDAE	-	-	-	-	LRnt (Nationally) DD (Globally)
85.	<i>Kerivoula hardwickei</i> Hardwicke's Forest Bat	-	-	-	-	DD (Nationally & Globally)
86.	<i>Kerivoula papillosa</i> Papillose Bat	-	-	-	-	DD (Nationally & Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
87.	<i>Kerivoula picta</i> Painted Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
88.	<i>Barbastella leucomelas</i> Eastern Barbastelle	-	-	-	-	DD (Nationally & Globally)
89.	<i>Eptesicus nilssoni</i> Northern Bat	-	-	-	-	DD (Nationally)
90.	<i>Eptesicus pachyotis</i> Thick-eared Bat	LRnt	-	-	-	DD (Nationally)
91.	<i>Eptesicus serotinus</i> Serotine	-	-	-	-	DD (Nationally & Globally)
*92.	<i>Eptesicus tatei</i> Sombre Bat	DD	-	-	-	DD (Nationally)
93.	<i>Hesperoptenus tickelli</i> Tickell's Bat	-	-	-	-	DD (Nationally & Globally)
94.	<i>La io</i> Great Evening Bat; Great Pipistrelle	LRnt	-	-	-	EN (Nationally) DD (Globally)
95.	<i>Myotis annectans</i> Hairy-faced Bat; Intermediate Bat	LRnt	-	-	-	DD (Nationally & Globally)
96.	<i>Myotis blythii</i> Lesser Mouse-eared Bat	-	-	-	-	DD (Nationally & Globally)
97.	<i>Myotis daubentonii</i> Daubenton's Bat; Water Bat	-	-	-	-	DD (Nationally & Globally)
98.	<i>Myotis formosus</i> Hodgson's Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
99.	<i>Myotis hasseltii</i> Van Hasselt's Bat	-	-	-	-	DD (Nationally & Globally)
100.	<i>Myotis horsfieldii</i> Horsefield's Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
101.	<i>Myotis longipes</i> Kashmir Cave Bat	VU	-	-	-	EN (Nationally) DD (Globally)
102.	<i>Myotis montivagus</i> Burmese Whiskered Bat	LRnt	-	-	-	NE
103.	<i>Myotis muricola</i> Nepalese Whiskered Bat	-	-	-	-	DD (Nationally & Globally)
104.	<i>Myotis mystacinus</i> Whiskered Bat	-	-	-	-	DD (Nationally & Globally)
105.	<i>Myotis sicarius</i> Mandelli's Mouse-eared Bat	VU	-	-	-	VU (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
106.	<i>Myotis siligorensis</i> Himalayan Whiskered Bat, Siligori Bat, Terai Bat	-	-	-	-	DD (Nationally & Globally)
107.	<i>Nyctalus leisleri</i> Leisler's Bat; Lesser Noctule; Hairy-armed Bat	LRnt	-	-	-	DD (Nationally & Globally)
108.	<i>Nyctalus montanus</i> Mountain Noctule	LRnt	-	-	-	DD (Nationally & Globally)
109.	<i>Nyctalus noctula</i> Common Noctule	-	-	-	-	DD (Nationally & Globally)
110.	<i>Otonycteris hemprichii</i> Hemprich's Long-eared Bat	-	-	-	-	VU (Nationally) DD (Globally)
111.	<i>Pipistrellus affinis</i> Chocolate Pipistrelle	-	-	-	-	DD (Nationally & Globally)
112.	<i>Pipistrellus babu</i> Babu's Pipistrelle	-	-	-	-	NE
113.	<i>Pipistrellus cadornae</i> Thomas's Pipistrelle	LRnt	-	-	-	DD (Nationally & Globally)
114.	<i>Pipistrellus ceylonicus</i> Kelaart's Pipistrelle	-	-	-	-	LRlc (Nationally) DD (Globally)
115.	<i>Pipistrellus circumdatus</i> Black-gilded Pipistrelle	-	-	-	-	NE
116.	<i>Pipistrellus coromandra</i> Indian Pipistrelle, Coromandel Pipistrelle	-	-	-	-	LRnt (Nationally) DD (Globally)
117.	<i>Pipistrellus dormeri</i> Dormer's Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
118.	<i>Pipistrellus javanicus</i> Javan Pipistrelle	-	-	-	-	NE
119.	<i>Pipistrellus kuhlii</i> Kuhl's Pipistrelle	-	-	-	-	DD (Nationally & Globally)
120.	<i>Pipistrellus paterculus</i> Mount Popa Pipistrelle	LRnt	-	-	-	LRnt (Nationally) DD (Globally)
121.	<i>Pipistrellus peguensis</i> Pegu's Pipistrelle	-	-	-	-	NE
122.	<i>Pipistrellus pipistrellus</i> Common Pipistrelle	-	-	-	-	VU (Nationally) DD (Globally)
123.	<i>Pipistrellus savii</i> Savi's Pipistrelle	-	-	-	-	DD (Nationally & Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
*124.	<i>Pipistrellus tenuis</i> Indian Pygmy Pipistrelle; Least Pipistrelle	-	-	-	-	NE
125.	<i>Plecotus auritus</i> Brown Long-eared Bat	-	-	-	-	DD (Nationally & Globally)
126.	<i>Plecotus austriacus</i> Grey Long-eared Bat	-	-	-	-	DD (Nationally & Globally)
127.	<i>Scotoecus pallidus</i> Desert Yellow Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
*128.	<i>Scotomanes emarginatus</i> Large-eared Yellow Bat	DD	-	-	-	NE
129.	<i>Scotomanes ornatus</i> Harlequin Bat	LRnt	-	-	-	DD (Nationally & Globally)
130.	<i>Scotophilus heathi</i> Asiatic Greater Yellow House Bat	-	-	-	-	LRlc (Nationally) DD (Globally)
131.	<i>Scotophilus kuhlii</i> Asiatic Lesser Yellow House Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
132.	<i>Tylonycteris pachypus</i> Club-footed Bat; Baboo Bat; Flat-headed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
133.	<i>Harpiocephalus harpia</i> Hariy-winged Bat	-	-	-	-	DD
134.	<i>Murina aurata</i> Little Tube-nosed Bat	LRnt	-	-	-	DD (Nationally & Globally)
135.	<i>Murina cyclotis</i> Round-eared Tube-nosed Bat	-	-	-	-	DD (Nationally & Globally)
*136.	<i>Murina grisea</i> Peter's Tube-nosed Bat	EN	-	-	-	VU
137.	<i>Murina huttoni</i> Hutton's Tube-nosed Bat	LRnt	-	-	-	DD (Nationally & Globally)
138.	<i>Murina leucogaster</i> Greater Tube-nosed Bat	-	-	-	-	DD (Nationally & Globally)
139.	<i>Murina tubinaris</i> Scully's Tube-nosed Bat	-	-	-	-	VU (Nationally) DD (Globally)
140.	<i>Miniopterus magnater</i> Sanborn's Long-fingered Bat	-	-	-	-	NE
141.	<i>Miniopterus pusillus</i> Nicobar Long-fingered Bat	-	-	-	-	DD (Nationally & Globally)
142.	<i>Miniopterus schreibersi</i> Schreiber's Long-fingered Bat	LRnt	-	-	-	LRlc (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
	Family MOLOSSIDAE					
143.	<i>Chaerephon plicata</i> Wrinkle-lipped Free-tailed Bat	-	-	-	-	DD (Nationally & Globally)
*144.	<i>Otomops wroughtoni</i> Wroughton's Free-tailed Bat	CR	-	-	-	CR
145.	<i>Tadarida aegyptiaca</i> Egyptian Free-tailed Bat	-	-	-	-	LRnt (Nationally) DD (Globally)
146.	<i>Tadarida teniotis</i> European Free-tailed Bat	-	-	-	-	DD (Nationally & Globally)
	Order PRIMATES Family LORIDAE					
147.	<i>Loris tardigradus</i> Slender Loris	VU	Sch. I	VU	App. II	LRnt (Nationally) DD (Globally)
148.	<i>Nycticebus coucang</i> Slow Loris	DD	Sch. I	IK	App. II	LRnt
	Family CERCOPITHECIDAE					
149.	<i>Macaca arctoides</i> Stump-tailed Macaque	VU	Sch. II	VU	App. II	LRnt (Nationally) DD (Globally)
150.	<i>Macaca assamensis</i> Assamese Macaque	VU	Sch. II		App. II	LRnt (Nationally) DD (Globally)
151.	<i>Macaca fascicularis</i> Crab-eating Macaque	LRnt	Sch. I	VU	App. II	CR (Nationally) DD (Globally)
152.	<i>Macaca mulatta</i> Rhesus Macaque	LRnt	Sch. II		App. II	LRlc (Nationally) DD (Globally)
153.	<i>Macaca nemestrina</i> Pig-tailed Macaque	-	Sch. II	VU	App. II	DD (Nationally & Globally)
*154.	<i>Macaca radiata</i> Bonnet Macaque	-	Sch. II		App. II	LRlc
*155.	<i>Macaca silenus</i> Lion-tailed Macaque	EN	Sch. I	EN	App. I	EN
156.	<i>Semnopithecus entellus</i> Hanuman Langur	LRnt	Sch. II	-	App. I	LRlc (Nationally) DD (Globally)
157.	<i>Trachypithecus geei</i> Golden Langur	EN	Sch. I	VU	App. I	CR (Nationally) DD (Globally)
*158.	<i>Trachypithecus johnii</i> Nilgiri Langur	VU	Sch. I	VU	App. II	VU
159.	<i>Trachypithecus phayrei</i> Phayre's Leaf Monkey	-	Sch. I	VU	App. II	EN (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
160.	<i>Trachypithecus pileatus</i> Capped Langur Family HYLOBATIDAE	EN	Sch. I	VU ¹	App. I	LRnt (Nationally) DD (Globally)
161.	<i>Bunopithecus hoolock</i> Hoolock Gibbon Order CARNIVORA* Family CANIDAE	EN	Sch. I	EN ²	App. I	EN
162.	<i>Canis aureus</i> Asiatic Jackal; Golden Jackal	-	Sch. II Part II		App. III	LRlc (Nationally)
163.	<i>Canis lupus</i> Wolf	-	Sch. I Part I	VU ³ IK ⁴	App. I	LRnt (Nationally) DD (Globally)
164.	<i>Cuon alpinus</i> Wild Dog; Dhole; Red Dog	VU	Sch. II Part II		App. II	LRnt
165.	<i>Vulpes bengalensis</i> Indian Fox	DD	Sch. II Part II		App. III	LRnt (Nationally) DD (Globally)
166.	<i>Vulpes cana</i> Blanford's Fox	-	-	-	App. II	-
167.	<i>Vulpes vulpes</i> Common Red Fox Family HYAENIDAE	-	Sch. II Part II	VU ⁵	App. III	LRnt (Nationally) DD (Globally)
168.	<i>Hyaena hyaena</i> Striped Hyaena Family FELIDAE*	LRnt	Sch. III	-	-	LRnt (Nationally) DD (Globally)
169.	<i>Caracal caracal</i> Caracal; Lynx	-	Sch. I Part I	EN ⁶	App. I	LRnt (Nationally) DD (Globally)
170.	<i>Catopuma temmincki</i> Asiatic Golden Cat; Golden Cat	VU	Sch. I	EN ⁷	App. I	NE
171.	<i>Felis chaus</i> Jungle Cat	-	Sch. II Part II	-	App. II	LRnt (Nationally) DD (Globally)
172.	<i>Felis silvestris</i> Wild Cat; Desert Cat	-	-	EN	App. II	LRnt (Nationally) DD (Globally)
173.	<i>Lynx lynx</i> European Lynx; Eurasian Lynx	-	Sch. I Part I	EN ⁸	App. II	EN (Nationally) DD (Globally)
174.	<i>Otocolobus manul</i> Pallas's Cat	-	NT	IK ⁹	App. II	NE
175.	<i>Prionailurus bengalensis</i> Leopard Cat	-	Sch. I Part I	VU ¹⁰	App. I	LRnt (Nationally) DD (Globally)

* The Cheetah, *Acinonyx jubatus* belonging to the family Felidae became extinct in India in the recent past. So it is not listed here.



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
176.	<i>Prionailurus rubiginosus</i> Rusty-spotted Cat	VU	Sch. I Part I	IK ¹¹	App. I	LRnt (Nationally) DD (Globally)
177.	<i>Prionailurus viverrinus</i> Fishing Cat	VU	Sch. I Part I	VU ¹²	–	VU (Nationally) DD (Globally)
178.	<i>Neofelis nebulosa</i> Clouded Leopard	VU	Sch. I Part I	EN	App. I	LRnt (Nationally) DD (Globally)
179.	<i>Panthera leo</i> Lion	VU	Sch. I Part I	EN ¹³	App. I	CR
180.	<i>Panthera pardus</i> Leopard; Panther	–	Sch. I Part I	VU	App. I	VU (Nationally) DD (Globally)
181.	<i>Panthera tigris</i> Tiger	EN	Sch. I Part I	VU ¹⁴	App. I	EN (Nationally) DD (Globally)
182.	<i>Pardofelis marmorata</i> Marbled Cat	VU	Sch. I Part I	EN ¹⁵	App. I	LRnt (Nationally) DD (Globally)
183.	<i>Uncia uncia</i> Snow Leopard; Ounce Family HERPESTIDAE	EN	Sch. I Part I	EN ¹⁶	App. I	EN (Nationally) DD (Globally)
184.	<i>Herpestes brachyurus</i> Brown Mongoose	DD	Sch. IV	–	App. III	VU
185.	<i>Herpestes edwardsii</i> Grey Mongoose	–	Sch. IV	–	App. III	LRlc (Nationally) DD (Globally)
186.	<i>Herpestes javanicus</i> Small Indian Mongoose	–	Sch. IV	–	–	LRlc (Nationally) DD (Globally)
*187.	<i>Herpestes palustris</i> Marsh Mongoose	EN	Sch. IV	–	–	EN
188.	<i>Herpestes smithii</i> Ruddy Mongoose	–	Sch. IV	–	App. III	LRlc (Nationally) DD (Globally)
189.	<i>Herpestes urva</i> Crab-eating Mongoose	–	Sch. IV	–	App. III	VU (Nationally) DD (Globally)
190.	<i>Herpestes vitticollis</i> Stripe-necked Mongoose Family MUSTELIDAE	–	Sch. IV	–	–	LRnt (Nationally)
191.	<i>Ambolynx cinereus</i> Small-clawed Otter	LRnt	–	VU ¹⁷	App. II	NE (Nationally) DD (Globally)
192.	<i>Lutra lutra</i> Common Otter	VU	Sch. I Part II	–	App. I	NE (Nationally) DD (Globally)
193.	<i>Lutrogale perspicillata</i> Smooth-coated Otter	VU	Sch. II Part II	–	App. II	NE



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
194.	<i>Arctonyx collaris</i> Hog Badger	-	Sch. I Part I	IK	-	DD (Nationally & Globally)
195.	<i>Melogale moschata</i> Chinese Ferret Badger	-	Sch. I Part II	-	-	EN (Nationally) DD (Globally)
196.	<i>Melogale personata</i> Burmese Ferret Badger	-	Sch. II Part I	-	-	VU (Nationally) DD (Globally)
197.	<i>Mellivora capensis</i> Ratel, Honey Badger	-	Sch. I Part I	IK	-	LRnt (Nationally) DD (Globally)
198.	<i>Martes flavigula</i> Yellow-throated Marten, Indian Marten	-	Sch. II Part II	-	App. III	LRlc (Nationally) DD (Globally)
199.	<i>Martes foina</i> Beech Marten; Stone Marten	-	Sch. II Part II	-	App. III	DD (Nationally & Globally)
*200.	<i>Martes gwatkinsi</i> Nilgiri Marten, South Indian Yellow-throated Marten	VU	Sch. II Part II	-	App. III	VU
201.	<i>Mustela altaica</i> Mountain Weasel; Alpine Weasel	-	Sch. II Part II	-	App. III	DD (Nationally & Globally)
202.	<i>Mustela erminea</i> Himalayan Stoat, Ermine	-	Sch. I Part I	IK ¹⁸	App. III	DD (Nationally & Globally)
203.	<i>Mustela kathiah</i> Yellow-bellied Weasel	-	Sch. II Part II	-	App. III	DD (Nationally)
204.	<i>Mustela sibirica</i> Siberian Weasel	-	Sch. II Part II	-	App. III	LRnt (Nationally) DD (Globally)
205.	<i>Mustela strigidorsa</i> Back-striped Weasel; Striped Weasel	VU	-	-	-	DD (Nationally)
206.	<i>Mustela putorius</i> Tibetan Polecat Family URSIDAE	-	-	-	-	-
207.	<i>Ailurus fulgens</i> Red Panda	EN	Sch. I Part I	EN	App. I	VU (Nationally) DD (Globally)
208.	<i>Helarctos malayanus</i> Malayan Sun Bear	DD	Sch. I Part I	EN	App. I	DD (Nationally & Globally)
209.	<i>Melursus ursinus</i> Sloth Bear	VU	Sch. I Part I	-	App. I	VU (Nationally) DD (Globally)
210.	<i>Ursus arctos</i> Brown Bear; Grizzly Bear; Red Bear	-	Sch. I Part I	EN ¹⁹	App. I	LRnt (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
211.	<i>Ursus thibetanus</i> Asiatic Black Bear Family VIVERRIDAE	VU	-	-	App. I	LRlc (Nationally) DD (Globally)
212.	<i>Arctictis binturong</i> Binturong; Bear Cat	-	Sch. I Part I	EN	App. III	DD (Nationally & Globally)
213.	<i>Arctogalidia trivirgata</i> Three-striped Palm Civet Small-toothed Palm Civet	-	-	-	-	VU (Nationally) DD (Globally)
214.	<i>Paguma larvata</i> Masked Palm Civet Himalayan Palm Civet	-	Sch. II Part II	-	App. III	LRlc (Nationally) DD (Globally)
215.	<i>Paradoxurus hermaphroditus</i> Common Palm Civet Toddy cat	-	Sch. II Part II	-	-	LRlc (Nationally) DD (Globally)
*216.	<i>Paradoxurus jerdoni</i> Jerdon's Palm Civet	VU	Sch. II Part II	-	App. III	VU
217.	<i>Prionodon pardicolor</i> Spotted Linsang; Tiger Civet	-	Sch. I Part I	EN	App. I	VU (Nationally) DD (Globally)
*218.	<i>Viverra civettina</i> Malabar Civet	CR	Sch. I Part II	EN ²⁰	App. III	CR
219.	<i>Viverra zibetha</i> Large Indian Civet	-	Sch. II Part II	-	App. III	VU (Nationally) DD (Globally)
220.	<i>Viverricula indica</i> Small Indian Civet; Rasse Order CETACEA Family BALAENIDAE	-	Sch. II Part II	-	App. III	LRnt (Nationally) DD (Globally)
221.	<i>Balaena mysticetus</i> Greenland Right Whale; Bowhead Whale Family BALAENOPTERIDAE	-	-	-	App. I	-
222.	<i>Balaenoptera acutorostrata</i> Minke Whale	LRnt	Sch. II Part I	-	App. I	LRnt (Nationally) DD (Globally)
223.	<i>Balaenoptera borealis</i> Sei Whale	EN	Sch. II Part I	-	App. I	LRnt (Nationally) DD (Globally)
224.	<i>Balaenoptera edeni</i> Bryde's Whale	-	Sch. II Part I	-	App. I	LRnt (Nationally) DD (Globally)
225.	<i>Balaenoptera musculus</i> Blue Whale	EN	Sch. II Part I	-	App. I	CR (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
226.	<i>Balaenoptera physalus</i> Fin Whale	EN	Sch. II Part I	-	App. I	LRnt (Nationally) DD (Globally)
227.	<i>Megaptera novaeangliae</i> Hump-back Whale Family DELPHINIDAE	VU	Sch. II Part I	-	App. I	LRnt (Nationally) DD (Globally)
228.	<i>Delphinus delphis</i> Common Dolphin	-	Sch. II Part I	-	App. II	LRnt (Nationally) DD (Globally)
229.	<i>Globicephala macrorhynchus</i> Short-finned Pilot Whale	LRcd				LRnt (Nationally) DD (Globally)
230.	<i>Grampus griseus</i> Grey or Risso's Dolphin	DD	-	-	-	-
231.	<i>Lagenodelphis hosei</i> Fraser's Dolphin	DD	-	-	-	-
232.	<i>Orcaella brevirostris</i> Irrawadi Dolphin	DD	Sch. I Part I	IK	App. I	EN (Nationally) DD (Globally)
233.	<i>Orcinus orca</i> Killer Whale	LRcd	-	-	-	LRnt (Nationally) DD (Globally)
234.	<i>Peponocephala electra</i> Melon-headed Whale	-	Sch. II Part I	-	App. II	LRnt (Nationally) DD (Globally)
235.	<i>Pseudorca crassidens</i> False Killer Whale	-	Sch. II Part I	-	App. I	LRnt (Nationally) DD (Globally)
236.	<i>Sousa chinensis</i> Indo-Pacific Hump-backed Dolphin	DD	-	-	App. I	-
237.	<i>Stenella attenuata</i> Bridled Dolphin; Pantropical Spotted Dolphin	LRcd	-	-	App. II	-
238.	<i>Stenella coeruleoalba</i> Striped Dolphin	LRcd	-	-	App. II	
239.	<i>Stenella longirostris</i> Spinner Dolphin	LRcd	Sch. II Part I	-	App. II	LRnt (Nationally) DD (Globally)
240.	<i>Steno bredanensis</i> Rough-toothed Dolphin	DD	-	-	App. II	
241.	<i>Tursiops truncatus</i> Bottle-nosed Dolphin Family PHOCOENIDAE	DD	Sch. II Part I	-	App. II	LRnt (Nationally) DD (Globally)
242.	<i>Neophocaena phocaenoides</i> Black Finless Porpoise	DD	-	IK	App. I	LRnt (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
	Family PHYSETERIDAE					
243.	<i>Kogia breviceps</i> Pygmy Sperm Whale	-	-	-	App. II	LRnt (Nationally) DD (Globally)
244.	<i>Kogia simus</i> Dwarf Sperm Whale	-	Sch. II Part I	-	App. II	LRnt (Nationally) DD (Globally)
245.	<i>Physeter macrocephalus</i> Sperm Whale	VU	Sch. II Part I		App. I	LRnt (Nationally) DD (Globally)
	Family PLATANISTIDAE					
246.	<i>Platanista gangetica</i> Ganges River Dolphin	-	Sch. I Part I	VU	App. I	CR (Nationally) DD (Globally)
	Family ZIPHIIDAE					
247.	<i>Ziphius cavirostris</i> Cuvier's Beaked Whale Goosebeaked Whale	-	Sch. II	-	App. II	LRnt (Nationally) DD (Globally)
248.	<i>Mesoplodon densirostris</i> , Blainville's Beaked Whale	DD	Sch. II	-	-	-
	Order SIRENIA					
	Family DUGONGIDAE					
249.	<i>Dugong dugon</i> Dugong	VU	Sch. I Part I	VU	App. I	CR (Nationally) DD (Globally)
	Order PROBOSCIDEA					
	Family ELEPHANTIDAE					
250.	<i>Elephas maximus</i> Asian or Indian Elephant	EN	Sch. I Part I	VU	App. I	VU (Nationally) DD (Globally)
	Order PERISSODACTYLA					
	Family EQUIDAE					
251.	<i>Equus kiang</i> Kiang; Tibetan Wild Ass	-	Sch. I ²¹ Part I	EN	App. II ²¹	VU (Nationally) DD (Globally)
252.	<i>Equus onager</i> Indian Wild Ass; Kulan	VU	Sch. I ²² Part I	EN ²³	App. I ²²	-
	Family RHINOCEROTIDAE					
253.	<i>Rhinoceros unicornis</i> Indian Rhinoceros; Greater One-horned Rhinoceros	EN	Sch. I Part I	EN	App. I	EN (Nationally) DD (Globally)
	Order ARTIODACTYLA					
	Family SUIDAE					
254.	<i>Sus salvanius</i> Pygmy Hog	CR	Sch. I Part I	EN	App. I	CR (Nationally) DD (Globally)

Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
255.	<i>Sus scrofa</i> Wild Pig Family TRAGULIDAE	-	Sch. I ²⁴	IK ²⁴	-	LRlc ²⁴ (Nationally) DD (Globally) ²⁴
256.	<i>Moschiola meminna</i> Mouse Deer, Indian Spotted Chevrotain Family MOSCHIDAE	-	-	IK ²⁵	-	LRnt (Nationally) DD (Globally)
257.	<i>Moschus chrysogaster</i> Forest Musk Deer	LRnt	Sch. I ²⁶	VU	App. I ²⁶	CR (Nationally) DD (Globally)
258.	<i>Moschus fuscus</i> Alpine Musk Deer Family CERVIDAE	-	Sch. I ²⁷	-	App. I ²⁷	-
259.	<i>Axis axis</i> Spotted Deer; Axis Deer	-	-	Sch. IV	-	LRlc (Nationally) DD (Globally)
260.	<i>Axis porcinus</i> Hog Deer	-	Sch. III	-	-	LRnt (Nationally) DD (Globally)
261.	<i>Cervus duvaucelii</i> Swamp Deer	VU	Sch. I Part I	VU	App. I	EN (Nationally) DD (Globally)
262.	<i>Cervus elaphus</i> Kashmir Red Deer	-	Sch. I Part I	EN ²⁸	App. I	CR (Nationally) DD (Globally)
263.	<i>Cervus eldii</i> Brow-antlered Deer; Eld's Deer	VU	Sch. I Part I	CR ²⁹	App. I	CR ²⁹
264.	<i>Cervus unicolor</i> Sambar	-	Sch. III	-	-	LRlc (Nationally) DD (Globally)
265.	<i>Mutiacus muntjak</i> Barking Deer; Indian Muntjak; Rib-faced Deer Family BOVIDAE	-	Sch. III	-	-	LRlc (Nationally) DD (Globally)
266.	<i>Antelope cervicapra</i> Black Buck; Indian Antelope	VU	Sch. I Part I	VU	App. III	LRlc (Nationally) DD (Globally)
267.	<i>Gazella bennettii</i> Indian Gazelle; Chinkara	LRcd	Sch. II Part I	VU ³⁰	-	LRlc (Nationally) DD (Globally)
268.	<i>Pantholops hodgsonii</i> Tibetan Antelope; Chiru	EN	Sch. I Part I	IK	App. I	CR (Nationally) DD (Globally)
269.	<i>Procapra picticaudata</i> Tibetan Gazelle	LRnt	Sch. I Part I	IK	-	CR (Nationally) DD (Globally)
270.	<i>Bos frontalis</i> Indian Bison; Gaur	VU	Sch. I Part I	VU ³¹	App. I	VU (Nationally) DD (Globally)

Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
271.	<i>Bos grunniens</i> Yak	VU	Sch. I Part I	CR ³²	App. I	EN (Nationally) DD (Globally)
272.	<i>Boselaphus tragocamelus</i> Blue Bull; Nilgai	LRcd	Sch. III	-	-	LRlc (Nationally) DD (Globally)
273.	<i>Bubalus bubalis</i> Wild Buffalo	EN	Sch. I Part I	EN	App. III	EN (Nationally)
274.	<i>Tetracerus quadricornis</i> Four-horned Antelope	VU	Sch. I Part I	VU	-	LRnt (Nationally) DD (Globally)
275.	<i>Budorcas taxicolor</i> Takin	VU	-	IK	App. II	-
276.	<i>Capra falconeri</i> Markhor, Punj	EN	Sch. I Part I	EN	App. I	CR (Nationally) DD (Globally)
277.	<i>Capra sibirica</i> Ibex; Siberian Ibex	-	Sch. I ³³	EN ³³	-	VU (Nationally) DD (Globally)
*278.	<i>Hemitragus hylacrius</i> Nilgiri Tahr	EN	Sch. I Part I	VU	-	EN
279.	<i>Hemitragus jemlahicus</i> Himalayan Tahr	VU	Sch. I Part I	EN	-	LRnt (Nationally) DD (Globally)
280.	<i>Naemorhedus goral</i> Goral	LRnt	-	-	App. I	-
281.	<i>Naemorhedus sumatraensis</i> Serow; Mainland Serow	VU ³⁴	Sch. I Part I	VU ³⁴	App. I	VU (Nationally) DD (Globally)
282.	<i>Ovis ammon</i> Argali; Nayan; Great Tibetan Sheep	VU	Sch. I Part I	IK ³⁵	App. I	EN (Nationally) DD (Globally)
283.	<i>Ovis vignei</i> Urial; Shapu; Punj	-	Sch. I Part I	EN	App. I	EN (Nationally)
284.	<i>Pseudois nayaur</i> Bharal; Blue Sheep Order PHOLIDOTA Family MANIDAE	LRnt	Sch. I Part I	VU	-	LRlc (Nationally) DD (Globally)
285.	<i>Manis crassicaudata</i> Indian Pangolin	LRnt	Sch. I Part I	VU	App. II	LRnt (Nationally) DD (Globally)
286.	<i>Manis pentadactyla</i> Chinese Pangolin Order RODENTIA Family SCIURIDAE	LRnt	Sch. I Part I	IK	App. II	LRnt (Nationally) DD (Globally)
287.	<i>Callosciurus caniceps</i> Golden-backed Squirrel; Gray-bellied Squirrel,					



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
288.	<i>Callosciurus erythraeus</i> Pallas's Squirrel	-	-	-	-	LRnt (Nationally) DD (Globally)
289.	<i>Callosciurus pygerythrus</i> Irrawaddy Squirrel; Hoary-bellied Himalayan Squirrel	VU	-	-	-	LRnt (Nationally) DD (Globally)
290.	<i>Dremomys lokriah</i> Orange-bellied Himalayan Squirrel	-	-	-	-	LRnt (Nationally) DD (Globally)
291.	<i>Dremomys pernyi</i> Perny's Long-nosed Squirrel	-	-	-	-	-
292.	<i>Dremomys rufigenis</i> Red-cheeked Squirrel	-	-	-	-	-
293.	<i>Funambulus layardi</i> Layard's Striped Squirrel	-	-	-	-	DD (Nationally & Globally)
294.	<i>Funambulus palmarum</i> Indian Palm Squirrel; Three-striped Palm Squirrel	-	-	-	-	LRnt (Nationally) DD (Globally)
295.	<i>Funambulus pennanti</i> Northern Palm Squirrel; Five-striped Palm Squirrel	-	Sch. IV	-	-	LRlc (Nationally) DD (Globally)
296.	<i>Funambulus sublineatus</i> Duksy-striped Squirrel	-	-	-	-	DD (Nationally & Globally)
*297.	<i>Funambulus tristriatus</i> Jungle-striped Squirrel	LRnt	-	-	-	LRnt (Nationally)
298.	<i>Marmota caudata</i> Long-tailed Marmot	LRnt	-	-	App. III	VU
299.	<i>Marmota himalayana</i> Himalayan Marmot	-	-	-	App. III	-
300.	<i>Ratufa bicolor</i> Malayan Giant Squirrel	-	Sch. II Part II	-	App. II	VU (Nationally) DD (Globally)
*301.	<i>Ratufa indica</i> Indian Giant Squirrel; Malabar Squirrel	VU	Sch. II Part II	-	App. II	VU (Nationally) DD (Globally)
302.	<i>Ratufa macroura</i> Grizzled Giant Squirrel	-	Sch. I Part I	EN	App. II	DD (Globally)
303.	<i>Tamiops macclellandi</i> Himalayan Striped Squirrel	-	-	-	-	LRnt (Nationally) DD (Globally)
304.	<i>Belomys pearsoni</i> Hairy-footed Flying Squirrel	LRnt	-	-	-	DD (Nationally & Globally)
*305.	<i>Biswamoyopterus biswasi</i> Namdhapa Flying Squirrel	CR	-	-	-	CR



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
306.	<i>Eupetaurus cinereus</i> Woolly Flying Squirrel	EN	Sch. I Part II	-	-	LRnt (Nationally) DD (Globally)
307.	<i>Hylopetes alboniger</i> Particoloured Flying Squirrel	-	-	-	-	VU (Nationally) DD (Globally)
308.	<i>Hylopetes baberi</i> Blyth's Flying Squirrel; Large Kashmir Flying Squireel	-	-	-	-	DD (Nationally & Globally)
309.	<i>Hylopetes fimbriatus</i> Small Kashmir Flying Squirrel; Pygmy Flying Squirrel	LRnt	-	-	-	LRnt (Nationally) DD (Globally)
310.	<i>Hylopetes phayrei</i> Phayre's Flying Squirrel	-	-	-	-	-
311.	<i>Petaurista elegans</i> Lesser Giant Flying Squirrel	-	-	-	-	-
312.	<i>Petaurista magnificus</i> Hodgson's Flying Squirrel	LRnt	-	-	-	-
313.	<i>Petaurista nobilis</i> Gray's Flying Squirrel	LRnt	-	-	-	-
314.	<i>Petaurista petaurista</i> Red Giant Flying Squirrel; Common Giant Flying Squirrel; Red Flying Squirrel	-	-	-	-	-
315.	<i>Petaurista philippensis</i> Indian Giant Flying Squirrel	-	-	-	-	-
316.	<i>Petenomys fuscocapillus</i> Small Travancore Flying Squirrel Family DIPODIDAE	-	Sch. I Part I	EN	-	VU (Nationally) DD (Globally)
317.	<i>Sicista concolor</i> Chinese Birch Mouse Family MURIDAE	-	-	-	-	DD (Nationally & Globally)
*318.	<i>Alticola albicauda</i> Baltistan Mountain Vole	LRnt	-	-	-	DD (Nationally)
319.	<i>Alticola argentatus</i> Silvery Mountain Vole; Silvery High Mountain Vole	-	-	-	-	-
*320.	<i>Alticola montosa</i> Mountain Vole	VU	-	-	-	-
*321.	<i>Alticola roylei</i> Royle's Mountain Vole	LRnt	-	-	-	DD (Nationally & Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
322.	<i>Alticola stoliczkanus</i> Ladakh Mountain Vole	-	-	-	-	DD (Nationally & Globally)
323.	<i>Alticola stracheyi</i> Thomas's Mountain Vole	-	-	-	-	-
324.	<i>Eothenomys melanogaster</i> Pere David's Vole	-	Sch. V	-	-	DD (Nationally & Globally)
325.	<i>Hyperacrius fertilis</i> True's Vole	-	Sch. V	-	-	DD (Nationally & Globally)
326.	<i>Hyperacrius wynnei</i> Murree's Vole	-	Sch. V	-	-	VU (Nationally) DD (Globally)
327.	<i>Microtus leucurus</i> Blyth's Vole	-	Sch. V	-	-	DD (Nationally & Globally)
328.	<i>Microtus sikimensis</i> Sikkim Vole	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
329.	<i>Cricetulus alticola</i> Ladakh Hamster; Short-tailed Tibetan Hamster	-	Sch. V	-	-	VU (Nationally) DD (Globally)
330.	<i>Cricetulus migratorius</i> Migratory Hamster, Little Grey Hamster	-	Sch. V	-	-	EN (Nationally) DD (Globally)
331.	<i>Gerbillus gleadowi</i> Little Hairy-footed Gerbil	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
332.	<i>Gerbillus nanus</i> Baluchistan Gerbil; Pygmy Gerbil	-	Sch. V	-	-	LRnt (Nationally)
333.	<i>Meriones hurrianae</i> Indian Desert Gerbil	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
334.	<i>Tatera indica</i> Indian Gerbil; Antelope Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
335.	<i>Apodemus draco</i> Hardwicke's Field Mouse or Wood Mouse	-	-	-	-	-
*336.	<i>Apodemus rusiges</i> Kashmir Field Mouse or Wood Mouse	-	-	-	-	-
337.	<i>Apodemus wardi</i> Yellow-naked Field Mouse or Wood Mouse	-	-	-	-	-
338.	<i>Bandicota bengalensis</i> Lesser Bandicoot Rat; Indian Mole Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
339.	<i>Bandicota indica</i> Greater Bandicoot Rat; Large Bandicoot Rat	–	Sch. V	–	–	LRnt (Nationally) DD (Globally)
340.	<i>Berylmys bowersi</i> Bower's Rat	–	Sch. V	–	–	EN (Nationally) DD (Globally)
341.	<i>Berylmys mackenziei</i> Mackenzie's Rat	–	Sch. V	–	–	LRlc (Nationally) DD (Globally)
342.	<i>Berylmys manipulus</i> Manipur Rat	–	Sch. V	–	–	DD (Nationally & Globally)
343.	<i>Chiropodomys gliroides</i> Pencil-tailed Tree Mouse	VU	Sch. V	–	–	VU (Nationally) DD (Globally)
344.	<i>Cremnomys blanfordi</i> Blanford's Rat	–	Sch. V	–	–	LRnt (Nationally) DD (Globally)
*345.	<i>Cremnomys cutchicus</i> Cutch Rock Rat	–	Sch. V	–	–	LRlc
*346.	<i>Cremnomys elvira</i> Large Rock Rat	VU	Sch. V	–	–	VU
347.	<i>Dacnomys millardi</i> Millard's Rat; Large-toothed Rat	–	Sch. V	–	–	VU (Nationally) DD (Globally)
348.	<i>Diomys crumpi</i> Crump's Mouse; Manipur Mouse	LRnt	Sch. V	–	–	EN (Nationally) DD (Globally)
349.	<i>Golunda ellioti</i> Indian Bush Rat	–	Sch. V	–	–	LRlc (Nationally) DD (Globally)
350.	<i>Hadromys humei</i> Hume's Manipur Bush Rat	–	Sch. V	–	–	DD (Nationally & Globally)
351.	<i>Leopoldamys edwardsi</i> Edward's Rat	–	Sch. V	–	–	DD (Nationally & Globally)
352.	<i>Micromys minutus</i> Harvest Mouse	LRnt	Sch. V	–	–	VU (Nationally) DD (Globally)
353.	<i>Millardia gleadowi</i> Sand-coloured Metad	–	Sch. V	–	–	LRlc (Nationally) DD (Globally)
*354.	<i>Millardia kondana</i> Large Metad	EN	Sch. V	–	–	VU
355.	<i>Millardia meltada</i> Soft-furred Metad	–	Sch. V	–	–	LRlc (Nationally) DD (Globally)
356.	<i>Mus booduga</i> Common Indian Field Mouse	–	Sch. V	–	–	LRlc (Nationally) DD (Globally)
357.	<i>Mus cervicolor</i> Fawn-coloured Mouse	–	Sch. V	–	–	LRlc (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
358.	<i>Mus cookii</i> Cook's Mouse; Ryley's Spiny Mouse	-	Sch. V	-	-	LRnt (Nationally) DD (Globally)
*359.	<i>Mus famulus</i> Bonhote's Mouse	EN	Sch. V	-	-	EN
360.	<i>Mus musculus</i> House Mouse	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
361.	<i>Mus pahari</i> Sikkim Mouse	-	Sch. V	-	-	DD (Nationally & Globally)
*362.	<i>Mus phillipsi</i> Wroughton's Small Spiny Mouse	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
*363.	<i>Mus platythrix</i> Indian Brown Spiny Mouse	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
364.	<i>Mus saxicola</i> Elliot's Spiny Mouse	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
365.	<i>Mus terricolor</i> Pygmy Field Mouse	-	-	-	-	-
366.	<i>Nesokia indica</i> Short-tailed Bandicoot Rat; Short-tailed Mole Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
367.	<i>Niviventer brahma</i> Thomas' Chestnut Rat	-	Sch. V	-	-	EN (Nationally) DD (Globally)
368.	<i>Niviventer eha</i> Little Himalayan Rat	-	Sch. V	-	-	VU (Nationally) DD (Globally)
369.	<i>Niviventer fulvescens</i> Chestnut Rat; Himalayan Chestnut Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
370.	<i>Niviventer langbianis</i> Dark-tailed Himalayan Rat	-	Sch. V	-	-	DD (Nationally & Globally)
371.	<i>Niviventer niviventer</i> Himalayan White-bellied Rat;	-	Sch. V	-	-	DD (Nationally Globally)
372.	<i>Niviventer tenaster</i> Tenasserim Rat	-	Sch. V	-	-	DD (Nationally & Globally)
*373.	<i>Rattus burrus</i> Miller's Nicobar Rat	VU	-	-	-	-
374.	<i>Rattus nitidus</i> Himalayan Rat	-	Sch. V	-	-	DD (Nationally & Globally)
375.	<i>Rattus norvegicus</i> Brown Rat; Common Rat; Norway Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
*376.	<i>Rattus palmarum</i> Zebebor's Nicobar Rat	VU	Sch. V	-	-	VU
*377.	<i>Rattus ranjinae</i> Ranjini's Field Rat	VU	Sch. V	-	-	VU (Nationally) DD (Globally)
378.	<i>Rattus rattus</i> Black Rat; Common House Rat; Roof Rat; Ship Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
379.	<i>Rattus sikkimensis</i> Sikkim Rat	VU	Sch. V	-	-	DD (Nationally & Globally)
*380.	<i>Rattus stoicus</i> Miller's Long-footed Bat; Miller's Andaman Rat	VU	Sch. V	-	-	VU
381.	<i>Rattus tanezumi</i> Temminck's Rat	-	-	-	-	-
382.	<i>Rattus turkestanicus</i> Turkestan Rat	-	Sch. V	-	-	DD (Nationally & Globally)
383.	<i>Rattus vicerex</i> Short-tailed Turkestan Rat	-	-	-	-	-
384.	<i>Vandeleuria oleracea</i> Palm Mouse; Indian Long-tailed Tree Mouse	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
*385.	<i>Platacanthomys lasiurus</i> Malabar Spiny Dormouse	-	Sch. V	-	-	LRlc
386.	<i>Cannomys badius</i> Bay Bamboo Rat; Lesser Bambo Rat	-	Sch. V	-	-	LRlc (Nationally) DD (Globally)
387.	<i>Rhizomys pruinosus</i> Hoary Bamboo Rat Family HYSTRICIDAE	-	Sch. V	-	-	LRnt (Nationally) DD (Globally)
388.	<i>Atherurus macrourus</i> Asiatic Bush-tailed Porcupine	-	Sch. II	-	-	EN (Nationally) DD (Globally)
389.	<i>Hystrix brachyura</i> Himalayan Crestless Porcupine	VU	-	-	-	VU (Nationally) DD (Globally)
390.	<i>Hystrix indica</i> Indian Crested Porcupine Order LAGOMORPHA Family OCHOTONIDAE	-	Sch. IV	-	-	LRlc (Nationally) DD (Globally)
391.	<i>Ochotona curzoniae</i> Daurian Pika	-	-	-	-	EN (Nationally) DD (Globally)



Table 2. Contd.

Sl. No.	Name of the species & Common English name	IUCN, 2003	Conservation status as per :			
			IWPA	RDB	CITES	CAMP, 1997
392.	<i>Ochotona forresti</i> Steppe Pika	LRnt	-	-	-	LRnt (Nationally) DD (Globally)
393.	<i>Ochotona ladacensis</i> Ladakh Pika	-	-	-	-	DD (Nationally)
394.	<i>Ochotona macrotis</i> Large-eared Pika	-	-	-	-	DD (Nationally & Globally)
395.	<i>Ochotona nubrica</i> Nubra Pika	-	-	-	-	DD (Nationally & Globally)
396.	<i>Ochotona roylei</i> Royle's Pika	-	-	-	-	LRnt (Nationally) DD (Globally)
397.	<i>Ochotona thibetana</i> Moupin's Pika	-	-	-	-	LRnt (Nationally) DD (Globally)
Family LEPORIDAE						
398.	<i>Caprolagus hispidus</i> Hispid Hare; Assam Rabbit	EN	Sch. I Part I	CR	App. I	NE
399.	<i>Lepus nigricollis</i> Indian Hare; Black-naped Hare	-	Sch. IV	-	-	LRlc (Nationally) DD (Globally)
400.	<i>Lepus oiostolus</i> Wolly Hare	-	-	-	-	DD (Nationally & Globally)
401.	<i>Lepus tolai</i> Cape Hare; Tolai Hare	-	-	-	-	-

IUCN : International Union for Conservation of Nature and Natural Resources; IWPA : Indian Wildlife (Protection) Act 1972; RDB : Red Data Book; CAMP : Conservation Assessment and Management Plan of Biodiversity Conservation Prioritisation Project; CITES : Convension on International Trade in Endangered Species of Wild Fauna and Flora; Ex : Extinct; CR : Critical; EN : Endanger; VU : Vulnerable; R : Rare; IK : Insufficiently known; LRcd : Lower Risk—conservation dependent; LRnt : Lower Risk—near threatened; LRlc : Lower Risk—least concern; DD : Data Deficient; NE : not evaluated; * Endemic to India).

Conservation status of the mammals with superscripts 1 to 35 (in the present list) has been recorded under their earlier scientific names in the IWPA/RBD documents, as presented below.

(1) as *Presbytis pileatus*; (2) as *Hylobates hoolock*; (3) as *C. lupus pallipes*; (4) as *C. l. chanco*; (5) as *V. v. pusilla*; (6) as *Felis caracal schmitzi*; (7) as *Felis temmincki*; (8) as *L. l. isabellinus*; (9) as *Felis manul*; (10) as *Felis bengalensis*; (11) as *Felis rubiginosa*; (12) as *Felis viverrina*; (13) as *P. l. persica*; (14) as *P. tigris tigris*; (15) as *Felis marmorata*; (16) as *Panthera unica*; (17) as *Aonyx cinerea*; (18) as *M. erminea ferghanac*; (19) as *U.a. isabellinus*; (20) as *Viverra megaspila*; (21) as *E. hemionus kiang*; (22) as *E. hemionus khur*; (23) as *E. o. khur*; (24) as *S. S. andamanensis*; (25) as *Tragulid meminna*; (26) as *M. moschiferus* (27) as *M. moschiferus*; (28) as *C. c. hanglu*; (29) as *C. eldi eldi*; (30) *Gazella dorcas bennetti*; (31) as *Bos gaurus*; (32) as *B. mutus*; (33) as *C. ibex*; (34) as *Capricornis sumatraensis*; (35) *O. ammon hodgsoni*.



Table 3. List of endemic mammals of India and their distribution

Sl. No.	Name of the species & Common English name	Distribution
	Order INSECTIVORA Family ERINACEIDAE	
1.	<i>Hemiechinus nudiventris</i> South Indian Hedgehog	Kerala, Tamil Nadu
	Family SORICIDAE	
2.	<i>Crocidura andamanensis</i> Andaman White-toothed Shrew	South Andaman Islands
3.	<i>Crocidura hispida</i> Andaman Spiny Shrew	Middle Andaman Islands
4.	<i>Crocidura jenkinsi</i> Jenkein's Spiny Shrew	South Andaman Islands
5.	<i>Crocidura nicobarica</i> Nicobar Spiny Shrew	Great Nicobar Island
6.	<i>Crocidura pergrisea</i> Pale Grey Shrew	Jammu & Kashmir
7.	<i>Suncus dayi</i> Day's Shrew	Kerala, Tamil Nadu
	Order SCANDENTIA Family TUPAIIDAE	
8.	<i>Anathana ellioti</i> Madras Tree Shrew	Peninsular India, up to Bihar in the north, West Bengal in the east and Satpura Hills (Madhy Pradesh) in the west
9.	<i>Tupaia nicobarica</i> Nicobar Tree Shrew	Great Nicobar and Little Nicobar Islands
	Order CHIROPTERA Family PTEROPODIDAE	
10.	<i>Latidens salimalii</i> Salim Ali's Fruit Bat	Tamil Nadu
11.	<i>Pteropus faunulus</i> Nicobar Flying Fox	Nicobar Islands (Car Nicobar, Camorta, Nancowry Islands)
	Family RHINOLOPHIDAE	
12.	<i>Rhinolophus cognatus</i> Andaman Horse-shoe Bat	Andaman Islands
13.	<i>Rhinolophus mitratus</i> Milted Horse-shoe Bat	Chaibassa in Bihar (known from one specimen only)
	Family HIPPOSIDERIDAE	
14.	<i>Hipposideros durgadasi</i> Khajuria's Leaf-nosed Bat	Madhya Pradesh



Table 3. Contd.

Sl. No.	Name of the species & Common English name	Distribution
15.	<i>Hipposideros hypophyllus</i> Kolar Leaf-nosed Bat	Karnataka
16.	<i>Hipposideros schistaceus</i> Andersen's Leaf-nosed Bat Family VESPERTILIONIDAE	Karnataka
17.	<i>Eptesicus tatei</i> Sombre Bat	West Bengal
18.	<i>Scotomanes emarginatus</i> Large-eared Yellow Bat	"India" (no specific locality or states are mentioned; it is known only by a type specimen).
19.	<i>Murina grisea</i> Peter's Tube-nosed Bat Family MILOSSIDAE	Mizoram, Uttaranchal
20.	<i>Otomops wroughtoni</i> Wroughton's Free-tailed Bat Order PRIMATES Family CERCOPITHECIDAE	Karnataka
21.	<i>Macaca radiata</i> Bonnet Monkey	Andhra Pradesh, Karnataka, Kerala, Maharastra and Tamil Nadu
22.	<i>Macaca silenus</i> Lion-tailed Macaque	South India between latitudes 9°30' N and 15°N in the states of Tamil Nadu, Karnataka, Kerala
23.	<i>Trachypithecus johnii</i> Nilgiri Langur Order CARNIVORA Family HERPESTIDAE	Karnataka, Kerala, Tamil Nadu
24.	<i>Herpestes palustris</i> Marsh Mongoose Family MUSTELIDAE	West Bengal (Nalbari about 8 Km east of Kolkata; north Salt Lake, South 24-Parganas)
25.	<i>Martes gwatkinsi</i> Nilgiri Marten; South Indian Yellow-throated Marten Family VIVERRIDAE	Western Ghats (Kerala, Karnataka and Tamil Nadu)
26.	<i>Paradoxurus jerdoni</i> Jerdon's Palm Civet	Kerala, Karnataka and Tamil Nadu
27.	<i>Viverra civettina</i> Malabar Civet Order ARTIODACTYLA Family BOVIDAE	Karnataka, Kerala and Tamil Nadu
28.	<i>Hemitragus hylocrius</i> Nilgiri Tahr	Kerala, Tamil Nadu

Table 3. Contd.

Sl. No.	Name of the species & Common English name	Distribution
	Order RODENTIA Family SCIURIDAE	
29.	<i>Funumbulus tristriatus</i> Jungle-striped Squirrel	Karnataka, Goa, Maharashtra, Kerala
30.	<i>Ratufa indica</i> Indian Giant Squirrel, Malabar Squirrel	Widely distributed in India in the states of Bihar, Andhra Pradesh, Orissa, Tamil Nadu, Kerala, Karnataka, Maharashtra, Madhya Pradesh and Gujarat
31.	<i>Biswamoyopterus biswasi</i> Namdhapa Flying Squirrel Family MURIDAE	Namdhapa in Arunachal Pradesh
32.	<i>Alticola albicauda</i> Baltistan Mountain Vole	Jammu & Kashmir
33.	<i>Alticola montosa</i> Mountain Vole	Jammu & Kashmir
34.	<i>Alticola roylei</i> Royle's Mountain Vole	Lahul and Kullu Valley (Himachal Pradesh), Ladak (Jammu & Kashmir), Kumaon (Uttaranchal)
35.	<i>Apodemus rusiges</i> Kashmir Field Mouse or Wood Mouse	Jammu & Kashmir, Himachal Pradesh and Uttaranchal
36.	<i>Cremnomys cutchicus</i> Cutch Rock Rat	Andhra Pradesh, Bihar, Gujarat, Karnataka, Rajasthan Tamil Nadu
37.	<i>Cremnomys elvira</i> Large Rock Rat	Known only from the type locality (Kurambapatti, Salam District, Tamil Nadu)
38.	<i>Millardia kondana</i> Large Metad	Known only from the type locality (Singharh, Pune Maharashtra)
39.	<i>Mus famulus</i> Bonhote's Mouse	Reported only from Kalapatti and Avalanchi (about 1540 m altitude) in Nilgiri Hills, Tamil Nadu
40.	<i>Mus platythrix</i> Indian Brown Spiny Mouse	Andhra Pradesh, Bihar, Gujarat, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh
41.	<i>Rattus burrus</i> Miller's Nicobar Rat	Trinket Island in Nicobar
42.	<i>Rattus palmarum</i> Zelevator's Nicobar Rat	Nicobar Islands (probably Great Nicobar)
43.	<i>Rattus ranjinae</i> Ranjini's Field Rat	Kerala (from Alleppy, Trichur and Thiruvananthapuram)
44.	<i>Rattus stoicus</i> Miller's Andaman Rat; Miller's Long-footed Rat	Andaman Islands (Henry Lawrance, Little Andaman and South Andaman Islands)
45.	<i>Platacanthomys lasiurus</i> Malabar Spiny Dormice	South Western Peninsular India in Karnataka and Kerala

Order INSECTIVORA

Insectivores are the small mammals with long narrow snout that projects far beyond the lower jaw. As their names imply they are principally insect eaters although they also feed on other animals. The smallest mammal of the world, the Pygmy White-toothed Shrew, *Suncus etruscus* belongs to this order and occurs in India.

Indian insectivores include hedgehogs, shrews and moles. They are represented by 30 species under 11 genera. Out of these, 7 species are endemic to this country. Indian insectivores belong to the following 3 families :

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Erinaceidae	1	3	1
2.	Soricidae	8	25	6
3.	Talpidae	2	2	-
	Total	11	30	7

Family ERINACEIDAE HEDGEHOGS

Members of this family are popularly called hedgehogs because of their pig-like snout. They can be recognised conveniently by the presence of numerous short spines which cover their back and sides fully leaving facial part and under part. These spines are never shed like porcupines. Their external ears are large unlike shrews and moles. When threatened with danger they curl up their body tightly forming a ball of bristles, withdraw their head and limbs under that ball and lie motionless, making them well protected from their enemy. Three species of hedgehogs occur in India, out of which one is endemic to this country.



Photo Courtesy : Ravi Sankaran

Indian Long-eared Hedgehog, *Hemiechinus collaris*

Deep brown, almost black with long legs and large external ears; head and body length 14-18 cm; also popularly called the Collared Hedgehog; found in dry scrubs of arid and semi-arid regions; feeds on insects, slugs, worms and even eggs of ground nesting birds; nocturnal and terrestrial in habit.

Distribution : India : Maharashtra, Gujarat, Delhi, Uttar Pradesh and also from Himachal Pradesh and Jammu & Kashmir. *Elsewhere :* Afghanistan and Pakistan.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally & Globally).

Photo Courtesy : DRS, Z.S.I., Jodhpur



Indian Long-eared Hedgehog, *Hemiechinus collaris*

Indian Hedgehog, *Hemiechinus micropus*

Light coloured species with greyish-white hairs on its forehead and cheeks; ears, limbs and claws smaller; head and body length 14-23 cm; also known as the Pale Hedgehog;

Photo Courtesy : Gujarat Forest Department



Indian Hedgehog, *Hemiechinus micropus*

found in rocky areas and grasslands; feeds on insects, slugs and small mammals; nocturnal and terrestrial in habit.

Distribution : India : Gujarat, Maharashtra, Punjab, Rajasthan and Uttar Pradesh. *Elsewhere :* Pakistan.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally & Globally)

South Indian Hedgehog, *Hemiechinus nudiventris*

ENDEMIC

Back brownish, a brown bangle above wrist and a brown collar on throat; head and body length 16.5 cm; endemic to India, confined to scrubs and bushes; feeds on insects, worms and small animals; nocturnal and terrestrial in habit.

Distribution : India : Kerala and Tamil Nadu.

Conservation status : IUCN : VU; CAMP : NE (Nationally).



Photo Courtesy : P.S. Easa

South Indian Hedgehog, *Hemiechinus nudiventris*

Family SORICIDAE SHREWS

Shrews are rat-like in appearance but their long pointed snout projecting considerably beyond the lower lip, depressed rounded ears and teeth make them distinct from rodents. These animals are clad with soft fur and, their feet and tail are sparsely covered with hairs. These are the most widely distributed insectivores of India comprising of two subfamilies Crocidurinae and Soricinae. Like hedgehogs, diet of shrews comprises of insects, worms and other small animals.

Subfamily CROCIDURINAE

WHITE-TOOTHED SHREW

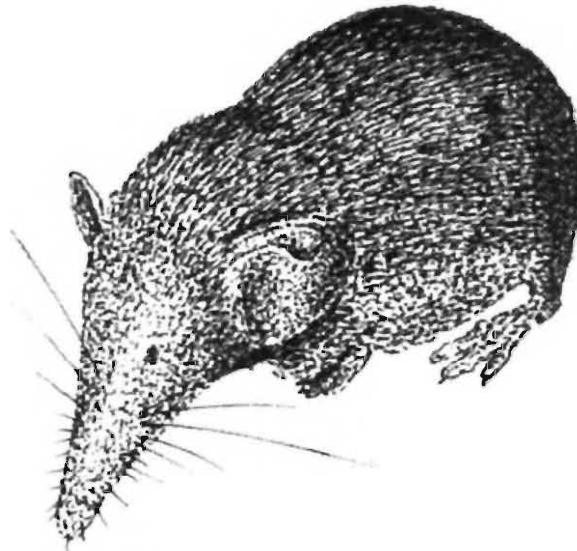
Genus	3
Species	16
Endemic species	6

This subfamily possesses unpigmented white teeth as its popular name signifies. It includes the smallest mammals of the world as well as the commonest shrew of India, both of which belong to the genus *Suncus*. Under this subfamily two other genera *Crocidura* and *Feroculus* are also present in India. Following 16 species of the White-toothed Shrew occur in India.



Pygmy White-toothed Shrew, *Suncus etruscus*

The smallest mammal of the world; velvety dark greyish brown above, silvery brown below; ears pink; head and body length 3-5.5 cm, tail 2.5-3.5 cm; nocturnal, terrestrial and semifossorial in habit.



Pygmy White-toothed Shrew, *Suncus etruscus*

Distribution : *India* : Throughout India except the arid regions of Rajasthan, Gujarat, Jammu & Kashmir. *Elsewhere* : Afghanistan, Arabian Peninsula, Asia Minor, Bhutan, China, Iraq, Malaysia, Nepal, North America, Pakistan, South Europe, Sri Lanka, Thailand, Ethiopia, New Guinea and Nigeria.

Conservation status : CAMP : LRlc (Nationally & Globally).

House Shrew, *Suncus murinus*

Greyish brown; head and body length 10-16 cm; tail 4.5-9 cm; also called the Grey Musk Shrew as it emits characteristic strong musk odour from the glands located at the sides of the body, when alarmed; very aggressive and vocal, making squeaking sound; nocturnal and semi-fossorial in habit; the commonest shrew of India.



Distribution : *India* : Throughout the country. *Elsewhere* : Afghanistan, Bhutan, China, Japan, Myanmar, Nepal, Sri Lanka, Continental and peninsular Indo-Malayan region; introduced in Guam, Maldive islands and probably in many other islands; introduced also in coastal Africa, Madagascar, Comores, Mauritius, Reunion and coastal Arabia.

Conservation status : CAMP : LRIc (Nationally), DD (Globally).

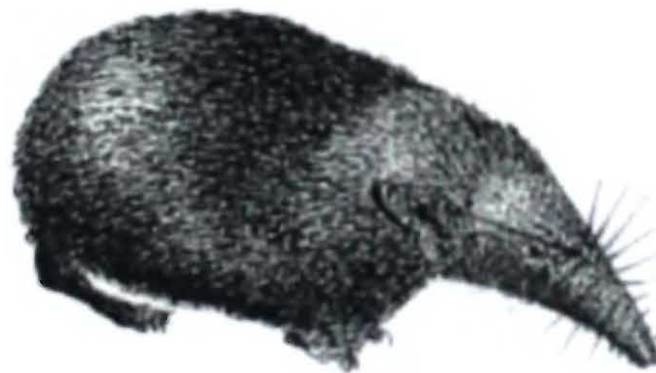
In addition to these, the following 3 species of *Suncus* are found in India. These are having restricted distribution within Indian limit. Out of these, one species, the Day's Shrew, *Suncus dayi* is endemic to this country.



House Shrew, *Suncus murinus*

Ceylon Shrew, *Suncus montanus*

Also called the Hill Shrew; dark brown, almost black in colour; its head and body length 8-10.5 cm and tail 4.5-6.5 cm; inhabits humid forests of hilly region.



Ceylon Shrew, *Suncus montanus*

Distribution : *India* : Karnataka, Kerala and Tamil Nadu. *Elsewhere* : Sri Lanka.

Conservation status : IUCN : VU; CAMP : VU (Nationally), DD (Globally).

Day's Shrew, *Suncus dayi*

Dark brown above, dark with silvery sheen below; head and body-length 7.1 cm; hind foot relatively large; endemic to India and inhabits montane humid forests; nocturnal and semi-fossorial in habit.

Distribution : *India* : Palni, Anamalai and Nilgiri hills in Tamil Nadu and Kerala.

Conservation status : IUCN : VU; CAMP : VU (Nationally).



Anderson's Shrew, *Suncus stoliczkanus*

Silvery grey above, paler below; head and body length 6-8 cm; nocturnal and semi-fossorial in habit.

Distribution : India : From Punjab and Rajasthan in the north to Tamil Nadu in the south.
Elsewhere : Bangladesh, Nepal, Pakistan.



Photo Courtesy : Gujarat Forest Deptt.

Anderson's Shrew, *Suncus stoliczkanus*

Conservation status : CAMP : LRlc (Nationally), DD (Globally).

Shrews belonging to the genus *Crocidura* are represented by 10 species. Out of these, following 5 species are endemic to this country and have restricted range of distribution.

Andaman White-toothed Shrew, *Crocidura andamanensis*

Dorsal fur soft, long and medium brown in colour, ventral fur grey; head and body length 11.4 cm, tail about 8 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to South Andaman islands.

Conservation status : IUCN : DD; CAMP : DD (Nationally).

Andaman Spiny Shrew, *Crocidura hispida*

Dorsal fur bristly, grey in colour with brownish wash, tail longer than head and body; head and body length 8.5 cm and tail about 10.3 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to Middle Andaman islands.

Conservation status : IUCN : EN; CAMP : EN (Nationally), DD (Globally).

ENDEMIC

Jenkin's Spiny Shrew, *Crocidura jenkinsi*

Dorsal fur long, brown and bristly, head and body length 10-10.7 cm and tail about 9.8 cm; prefers scrub jungle adjacent to human vegetation; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to South Andaman islands.

Conservation status : IUCN : DD; CAMP : DD (Nationally).

ENDEMIC

Nicobar Spiny Shrew, *Crocidura nicobarica*

Dorsal fur short, bristly, sooty brown in colour; head and body length 10.7-12 cm, tail about 7.5-8 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to Great Nicobar island.

Conservation status : IUCN : DD; CAMP : DD (Nationally).

ENDEMIC

Pale Gray Shrew, *Crocidura pergrisea*

Dorsal fur pale grey and under parts creamy grey; head and body length 5.6 cm and tail about 4.5 cm; inhabits mostly "to the dry hill region, west of Indus as well as inner drier Himalayan ranges"; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to Jammu & Kashmir.

Conservation status : IUCN : VU; CAMP : EN (Nationally), DD (Globally).

Of the 5 nonendemic species of *Crocidura* only one species, the Gray Shrew, *Crocidura attenuata* is widely distributed and the others have restricted distribution within Indian limit.

Gray Shrew, *Crocidura attenuata*

Dorsal fur greyish brown and under parts yellowish-grey; head and body length 6.8-8.9 cm, tail 4.3-6 cm; inhabits secondary forests, farm lands and open lands; nocturnal and semi-fossorial in habit.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Uttar Pradesh, Punjab, Sikkim, West Bengal Arunachal Pradesh and Assam. *Elsewhere* : Bhutan, China, Indonesia, Malaysia, Pakistan, Philippines and Vietnam.

Conservation status : CAMP : LRlc (Nationally), DD (Globally).

Southeast Asian White-toothed Shrew, *Crocidura fuliginosa*

Dark grey above with lighter under parts; head and body length 7-10 cm, tail 6.2-9 cm; nocturnal and semi-fossorial in habit.



Distribution : India : North-east India in Assam and Meghalaya. Elsewhere : China, Indonesia, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).

Horsefield's Shrew, *Crocidura horsfieldi*

Greyish brown above and dark grey below, tail with silvery hair; head and body length 5.7 cm and tail 3-4.8 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Jammu & Kashmir and montane forests of Karnataka. Elsewhere : China, Japan, Myanmar, Nepal, Sri Lanka and Thailand to Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).

Miller's White-toothed Shrew, *Crocidura pullata*

Mousy grey-brown with long fur; head and body length 8.3 cm, tail 4.5 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to Jammu & Kashmir. Elsewhere : Afghanistan, China, Pakistan and Thailand.

Conservation status : CAMP : DD (Nationally & Globally).

Gueldenstaedt's White-toothed Shrew, *Crocidura gueldenstaedtii*

Dorsal fur grey-brown, under parts lighter; head and body length 10.7-12 cm, tail 9-9.5 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Confined to Jammu & Kashmir.

Conservation status : Not known.

The following species of white-toothed shrew belonging to the genus *Feroculus* is found in India.

Kelaart's Long-clawed Shrew, *Feroculus feroculus*

Dorsal fur ashy black, underparts paler; head and body length 10-12 cm; tail 5.6-7.3 cm; forefeet large and whitish, hind feet smaller and pale; inhabiting montane swamps and marshes; nocturnal and semi-fossorial.

Distribution : India : Kerala. Elsewhere : Sri Lanka.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Subfamily SORICINAE**RED-TOOTHED SHREW**

Genus	5
Species	9

In India this subfamily is represented by 5 genera, *viz.*, *Sorex*, *Soriculus*, *Anourosorex*, *Chimarrogale* and *Nectogale*. These Shrews possess reddish pigmentation in their teeth for which these are popularly known as the Red-toothed Shrews.

In India *Soriculus* is represented by following 4 species

Hodgson's Brown-toothed Shrew, *Soriculus caudatus*

Grey brown; head and body length 4.7-7.4 cm, tail 4.5-6.9 cm; inhabits coniferous forests; nocturnal and semi-fossorial.

Distribution : India : In the Himalaya from Jammu & Kashmir to Manipur at elevations 1800-3500 m. *Elsewhere* : Cambodia, China, Laos, Formosa, Myanmar, Nepal and Vietnam.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Indian Long-tailed Shrew, *Soriculus leucops*

Dark brown, tail much longer than body; head and body length 5.5-7.1 cm; tail 9-10.5 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Northeastern states and Sikkim. *Elsewhere* : Bhutan, China, Myanmar, Nepal and Vietnam.

Conservation status : CAMP : VU (Nationally), DD (Globally)

Arboreal Brown-toothed Shrew, *Soriculus macrurus*

Grey, tail longer than body; head and body length 4.7-6.8 cm and tail 7.7-10.3 cm; inhabits bamboo and scrub forests; nocturnal and semi-fossorial in habit.

Distribution : India : West Bengal (Darjeeling district) and Sikkim. *Elsewhere* : China, Myanmar, Nepal and Vietnam.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Sikkim Long-clawed Shrew; *Soriculus nigrescens*

Also called the Himalayan Shrew; brown with large feet and claws; head and body length 7-9.4 cm, tail 3.4-4.8 cm; nocturnal and semi-fossorial in habit.

Distribution : India : In the Himalaya in Kumaon (Uttaranchal), Sikkim, West Bengal (Darjeeling) and Northeastern states. *Elsewhere* : Bhutan, China, Myanmar and Nepal.

Conservation status : CAMP : VU (Nationally), DD (Globally).



Following two species of *Sorex* are found in India

Lesser Shrew, *Sorex minutus*

Bicoloured, dark grey brown above, dull grey below; head and body length 4.6-7.4 cm and tail 3.7-5.2 cm; nocturnal and semi-fossorial in habit.

Distribution : India : Jammu & Kashmir. *Elsewhere* : Europe to Yenesei River and Lake Baikal, south to Altai and Tienshan Mountains, China, Nepal, Pakistan and Turkey.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Tibetan Shrew, *Sorex thibetanus*

Grey brown with long and well-furred tail; head and body length 5.7-7.4 cm and tail 3.7-4.8 cm; nocturnal and semi-fossorial in habit.

Distribution : India : High elevations of Jammu & Kashmir.

Conservation status : Not known.

In addition to these, Red-toothed Shrew include also the following species within Indian limit.

Mole Shrew, *Anourosorex squamipes*

Body with velvety olive grey fur, short naked feet, minute ears and eyes and truncated tail; head and body length 8-11 cm; tail 0.8-1.5 cm; nocturnal and semi-fossorial.

Distribution : India : Northeastern states. *Elsewhere* : Bhutan, China, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Himalayan Water Shrew, *Chimarrogale himalayica*

Bluish grey, head and body length 8-13 cm; tail 8-10 cm; small eyes, reduced ears closed by a flap while diving, water proof fur, long white bristles on feet and whiskers on nose; swims well under water, feeds on insects, crustaceans and small fishes; nocturnal and semi-aquatic in habit.

Distribution : India : In streams in the Himalaya in Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Sikkim and West Bengal (Darjeeling district). *Elsewhere* : China, Myanmar and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Web-footed Water Shrew, *Nectogale elegans*

Slate grey above, silver under parts, tail with four fringes and with a long tuft of white hairs; head and body length 9.9-12.5 cm, tail 9.6-12.3 cm; nocturnal and semi-aquatic in habit; diet similar to that of the Himalayan Water Shrew.

Distribution : *India* : Mountain streams of Sikkim, West Bengal (Darjeeling district) and North-eastern Himalaya at elevation 900-2300 m. *Elsewhere* : Bhutan, China, Myanmar and Nepal.

Conservation status : VU (Nationally), DD (Globally).

Family TALPIDAE

MOLES

Moles are efficient soil diggers and subterranean in habits. Their body is cylindrical, neck considerably short and tail also very short, completely hidden under their dense fur. Their eyes are minute and fur so dense and velvety that no soil adheres to them while burrowing.

Moles feed on insects, small animals and even eggs of ground nesting birds. Two species of moles are found within India's limit.

Himalayan Mole, *Euroscaptor micrura*

Fur dense, velvety black with silvery grey gloss and a very short tail hidden within the fur; head and body length 10-16 cm; forefeet large shovel-like; also called the Eastern Mole; found at altitude of 1525-2440 m; nocturnal and semi-fossorial in habit.

Distribution : *India* : Central and Eastern Himalaya in Sikkim, West Bengal (Darjeeling district) and North-eastern states. *Elsewhere* : Bangladesh, Nepal, doubtfully in Peninsular Malaysia.

Conservation status : Not known.

White-tailed Mole, *Parascaptor leucura*

Resembles the Himalayan Mole, but sparsely clad with white hairs and possesses longer club-shaped tail, thicker towards its terminal part than near its base; tail tip covered with white hairs; nocturnal and semi-fossorial in habit.

Distribution : *India* : Khasi and Jaintia hills of North-east India.

Conservation status : VU (Nationally), DD (Globally). *Elsewhere* : Cambodia, China, Laos, Malaysia, Myanmar and Thailand.

Order SCANDENTIA

This order contains a single family Tupaiidae whose taxonomic status has been a matter of great controversy. Earlier this family was placed under the order Insectivora and then under Primates. At present a separate order Scandentia has been erected for its own.

Family TUPAIIDAE

TREE SHREWS

Genus	2
Species	3
Endemic species	2

Members of this family are popularly called Tree Shrews. They resemble squirrels in appearance and in the tree climbing capability. In fact, "tupai" is a Malaya word for squirrels. But Tree Shrews can be conveniently differentiated from squirrels by the absence of long whiskers. They never leap from tree to tree, jerk their tail or cling head downwards to the trunk as the squirrels do. Tree Shrews spend most of their time on ground or low bushes for food and play activities. They are diurnal and more active during the day. They are omnivorous and feed on fruits, seeds, leaves and insects. The following are the Indian Tree Shrews.

Madras Tree Shrew, *Anathana ellioti*

ENDEMIC

Upper parts speckled yellowish, brown near shoulder and rufous red near the rump; under parts greyish-white; a whitish or cream coloured distinct shoulder stripe present; head and body length 17.5-20 cm and tail 16-19 cm; endemic to India, inhabits forests.

Distribution : India : Peninsular India north up to Bihar, West Bengal in the east and the Satpura Hills (Madhya Pradesh) in the west.

Conservation status : IUCN : LRnt; CAMP : LRnt.

Photo Courtesy : T. P. Bhattacharya, Z.S.I.



Madras Tree Shrew, *Anathana ellioti*

Nicobar Tree Shrew, *Tupaia nicobarica*



Posterior part of back black, sides of head and neck and outside of limbs yellowish golden brown; a band extending from the back of head to between the shoulders; underface pale brown; endemic to India; confined to the rain forests.

Distribution : India : Great Nicobar and Little Nicobar islands.

Conservation status : IUCN EN; CAMP : EN.

ENDEMIC

Nicobar Tree Shrew, *Tupaia nicobarica*

Common Tree Shrew, *Tupaia belangeri*

Upper parts olive brown, under parts pale brown, a light shoulder stripe present; head and body length 15-20 cm, tail almost of same size; confined to forests, plantations and gardens.

Distribution : India : North-east India and Darjeeling district in West Bengal up to 1850 m elevation. *Elsewhere* : Cambodia, China, Laos, Malaysia North of 10° N latitude, Myanmar, Nepal, Thailand, Vietnam and adjacent islands.

Conservation status : CAMP : LRlc (Nationally), DD (Globally).



Photo Courtesy : T. P. Bhattacharya, Z.S.I.

Common Tree Shrew, *Tupaia belangeri*

Order CHIROPTERA

The chiropterans are popularly known as bats. They are the only mammals which are true fliers and capable of sustained flight by upward and downward beat of wings. Some other mammals, *viz*, Flying Squirrels can also 'fly'. But they are not true fliers. They simply glide through the air with the aid of parachute-like extensions of their skin, called patagium. The term Chiroptera is derived from two Greek words—*chieros*, a hand and *pteron*, a wing. As a matter of fact, forelimbs and fingers of the forelimbs of bats are remarkably modified to act like the ribs of an umbrella for supporting, folding and unfolding the integumental flight membrane or wing. Only the first digit of the forelimbs of bats possesses claw. But in the majority of the Fruit Bats there is an additional claw at the end of the second digit. Their hind feet are also with curved claws.

The bats are classified under two suborders, namely, Megachiroptera which are fruit-eaters and comparatively large and, Microchiroptera which are principally insect-eaters and usually small in size.



Megachiroptera

This suborder is represented by only one family Pteropidae, members of which are popularly known as Fruit Bats and Flying Foxes. The diet of these bats primarily includes varieties of fruits, pollen and even nectar.



Family PTEROPODIDAE

Fruit Bats, Flying Foxes

Genus	8
Species	13
Endemic species	2

All the Indian Fruit Bats except the Dawn Bat, *Eonycteris spelaea* possess a claw on the second finger in addition to the claw on the thumb. This claw helps the Fruit Bats in scrambling and climbing among the twigs and branches of the tree during searching and procuring their food. The Fruit Bats are normally gregarious during the day, hanging their heads downwards from the roosting trees with wings folded cloak-like around the body. At dusk they fly from their roosting places to their food trees. Besides trees, some of them roosts in caves and under the eaves of buildings.



In India, large Fruit Bats belonging to the genus *Pteropus* are represented by 5 species, all of which are found in Andaman and Nicobar islands. Out of these, only one species, the Indian Flying Fox, *Pteropus giganteus* is distributed all over India. The largest living bat of the world, *Pteropus vampyrus*, having a wingspread of 1.7 meter is reported to occur in Andaman and Nicobar islands. It is possibly a seasonal migrant from South-east Asia (Andersen, 1912). The following are the Indian species of *Pteropus*.



Malayan Large Flying Fox, *Pteropus vampyrus*

Blackish brown on the back with a few paler hairs; ears long pointed; head and body length 25.9-30 cm, forearm length 19.5-20.9 cm; gregarious, roosting in groups exceeding 100 individuals.

Distribution : *India* : Reported from Andaman and Nicobar islands as seasonal migrant. *Elsewhere* : Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam and its adjacent small islands.

Conservation status : IWPA : Sch. V, CAMP : DD (Nationally & Globally).

Indian Flying Fox, *Pteropus giganteus*

Rich chestnut brown on crown and head; ears black, almost hairless, tall and pointed; head and body length 19.8-30 cm, forearm length 15.2-18.3 cm; roosts on trees in large colonies of even 1000 individuals; roosting trees located in busy towns and villages.

Distribution : *India* : Throughout India including Andaman islands. *Elsewhere* : China, Maldive islands, Myanmar, Nepal, Sri Lanka, Thailand.

Conservation status : CAMP : LRnt; CITES : Appendix II.



Photo Courtesy : Rati Ram, ZSI,
(A specimen in NRS Museum, ZSI, Dehra Du

Indian Flying Fox, *Pteropus giganteus*

Blyth's Large Flying Fox, *Pteropus melanotus*

Variable in colour; brown head, golden tawny or reddish mantle, pale and bright ventral surface in Nicobar forms; head blackish, sprinkled with few grey hairs, ventral surface dark brown or blackish brown in Andaman forms; ears large and broad, tips rounded off; forearm length 14.8-16.3 cm; gregarious, roosting in huge colony upto several thousands.

Distribution : *India* : Andaman and Nicobar islands in mangroves (Andersen, 1912). *Elsewhere* : Indonesia.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally); CITES : Appendix II.



Blyth's Large Flying Fox,
Pteropus melanotus



Island Flying Fox, *Pteropus hypomelanus*

Hairs on the back grey-brown to blackish brown; forehead, cheeks and chin dark brown, crown fawn; ears short and broad; head and body length 19.9-22 cm and forearm length 13.5-14.5 cm; gregarious; roosts in tall trees or coconut palm in groups upto several thousands.

Distribution : India : Andaman islands including Narcondam island and Barren island.

Conservation status : Not known.

Nicobar Flying Fox, *Pteropus faunulus*

Dark brownish black above, intermixed with some white hairs, ventral surface uniform grey chestnut brown; ears "triangular pointed" ; head and body length 17 cm, forearm length 11-11.6 cm; endemic to India; holotype was shot in a dark forest.

Distribution : India : Confined to Nicobar islands (Car Nicobar, Camorta and Nancowry islands).

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : VU; CITES : Appendix II.

In addition to these, the following Fruit Bats are also distributed in India.

Salim Ali's Fruit Bat, *Latidens salimalii*

Dorsal hairs brown to black, grizzled with some paler hairs on shoulder and back; wings black throughout; ears oval with narrowly pointed tip; head and body length 10.2-10.9 cm and forearm length 6.6-6.9 cm; endemic to India; inhabits broad-leaved montane forests; habits not much known.

Distribution : India : Known only from high wavy mountains of Tamil Nadu at an altitude 460-770 m.

Conservation status : IUCN : CR; CAMP : EN.

Short-nosed Fruit Bat, *Cynopterus sphinx*

Medium sized Fruit Bat, fur soft and silky in texture; ears large, mocha brown in colour with well developed pale anterior and posterior border; wings dark brown marked by pale 'fingers'; head and body length 7.6-11.3 cm, forearm length 6.4-7.9 cm; most common amongst Indian Fruit Bats; roosts in small group, generally of 3-4 individuals among palm leaves, in tree hollows, *Ficus* trees and sometimes in eaves of houses.



Short-nosed Fruit Bat, *Cynopterus sphinx*

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Distribution : India : Occurs throughout this country except higher Himalaya and deserts.
Elsewhere : Bangladesh, Bhutan, Campuchia, China, Indonesia, Malaysia, Myanmar, Pakistan, Sri Lanka, Thailand, Vietnam and many south-east Asian islands.

Conservation status : CAMP : LRlc (Nationally), DD (Globally).

Lesser Dog-faced Fruit Bat, *Cynopterus brachyotis*

Similar to the Short-nosed Fruit Bat in appearance, but smaller in size; ear smaller (never exceed 1.8 cm) without (or with poorly developed) pale anterior and posterior borders and without pale 'fingers'; inhabits forests, orchards or open country as well as dimly lit caves or houses; roosts in small groups.

Distribution : India : Southern India and Andaman and Nicobar islands at altitude up to 1500 m.
Elsewhere : China, Indonesia, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam and adjacent islands.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).



Lesser Dog-faced Fruit Bat, *Cynopterus brachyotis*

Fulvous Fruit Bat, *Rousettus leschenaulti*

Fur soft, fine and silky; fulvous brown on crown of the head, back, flanks and throat; belly more greyish in the median area; head and body length 11.1-14.7 cm, forearm length



Photo Courtesy : Gujarat Forest Department

7.5-8.6 cm; having a wide habitat tolerance from arid region to humid forests and from sea-levels to high mountain ranges of the Himalaya; generally roosts in caves, deserted buildings, disused tunnels in colonies of 2-3 to even 10,000 individuals as observed in a subterranean laterite cave of Karnataka (Bates and Harrison, 1997).

Distribution : India : Throughout India except deserts and high mountains.
Elsewhere : China, Indonesia, Myanmar, Nepal, Pakistan, Thailand and Vietnam.

Conservation status : CAMP : LRlc (Nationally), DD (Globally).

Fulvous Fruit Bat, *Rousettus leschenaulti*



Dawn Bat, *Eonycteris spelaea*

Fur short, velvety, dark brown above, underside mottled grey-brown; having a claw only on its thumb but not having any additional claw on the second digit as in other Fruit Bats; unlike the Short-nosed Fruit Bat ears lack pale outer margins and "finger" markings on uniform dark brown membrane; head and body length 9.2-13 cm, forearm length 6.6-7.8 cm; inhabits variety of habitats including forest clad hill slopes and cultivated areas; roosts in caves sometimes in large groups in thousands.

Distribution : India : North-east India, West Bengal, Sikkim, Uttaranchal, Andhra Pradesh, Karnataka and Andaman island. *Elsewhere* : China, Indonesia, Malaysia, Myanmar, Philippines, Sulawesi, Thailand and several adjacent islands.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Blanford's Fruit Bat, *Sphaerius blanfordi*

Fur long and dense, dull greyish brown on dorsal and ventral surfaces, wing membrane uniformly brown; tail entirely absent; head and body length 8.4-8.9 cm; forearm length 5.1-6 cm; occurs in valleys between the Himalayan high ranges (2700 m) and foot hills; habits less known.



Blanford's Fruit Bat, *Sphaerius blanfordi*

Distribution : India : Uttaranchal, Darjeeling part of West Bengal, Sikkim, Arunachal Pradesh and Mizoram. *Elsewhere* : Bhutan, China, Myanmar and Thailand.

Conservation status : IWPA : Sch. V, CAMP : DD (Nationally & Globally).

Hill Long-tongued Fruit Bat, *Macroglossus sobrinus*

Uniformly clay brown on dorsal surface, buffy brown on ventral surface; ears uniformly brown with narrowly rounded tips and small antitragal lobes; tail absent as in the Blanford's Fruit Bat; head and body length 7.8-8.9 cm, forearm length 4.4-5.2 cm; inhabits forests; prefers to feed on pollen and nectar; roosts in groups of 5-10 individuals.

Photo Courtesy : T. P. Bhattachaya, Z.S.I.



Hill Long-tongued Fruit Bat, *Macroglossus sobrinus*

Distribution : India : Darjeeling district of West Bengal, Sikkim and North-east India. *Elsewhere* : Indonesia, Malaysia, Myanmar, Thailand, Vietnam and many south-east Asian small islands.

Conservation status : CAMP : DD (Nationally & Globally).

Niphan's Tail-less Fruit Bat, *Megaerops niphanae*

Fur soft and fine, uniformly greyish brown on the back, slightly paler across the shoulder; ventral surface grey with flanks darker and belly olivaceous; tail absent; head and body length 8.1-9 cm and forearm length 5.2-6.3 cm; inhabits the forested areas; habits less known.

Distribution : India : West Bengal (Darjeeling district), Sikkim, Arunachal Pradesh, Manipur, Mizoram and Nagaland. *Elsewhere* : Thailand and Vietnam.

Conservation status : DD.



Microchiroptera

Microchiropterans are popularly known as insectivorous bats. In fact, majority of microchiropterans live exclusively on insects while some are carnivorous preying on small mammals, birds, lizards, frogs and even fishes. These bats possess only one claw on the forelimb. As many as 100 species microchiropterans are distributed in India, comprising of the following families.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Rhinopomatidae	1	2	–
2.	Emballonuridae	2	6	–
3.	Megadermatidae	1	2	–
4.	Rhinolophidae	1	14	2
5.	Hipposideridae	2	14	3
6.	Vespertilionidae	17	58	3
7.	Molossidae	3	4	1
	Total :	27	100	9

Family RHINOPOMATIDAE MOUSE-TAILED BATS

This is a small family of insectivorous bats containing only one genus *Rhinopoma*. These bats are also popularly known as the Long-tailed bats because these are the only microchiropterans whose tails are as long as their head and body length. Their ears are joined across the forehead by a connecting membrane and the nose with a pad and a rudimentary nose-leaf. These bats are usually found in treeless and arid regions. They roost in caves, rocks, clefts, wells, tunnels, tombs, palaces and disused houses. Two species of mouse-tailed bats occur in India.

Greater Mouse-tailed Bat, *Rhinopoma microphyllum*

Hairs short and fine, grey brown on dorsal surface and paler below; head and body length 6-8.4 cm, forearm length 5.9-7.4 cm, tail 5-7.7 cm; found in arid and semi-arid regions; roosts in caves, rocks, tunnels, crevices and disused houses; gregarious, colony size varying from a few individuals to 2-3 thousands.

Distribution : India : Rajasthan, Gujarat, Delhi, Madhya Pradesh, Maharashtra, Orissa, Bihar, West Bengal and Uttar Pradesh. *Elsewhere* : Afghanistan, Indonesia, Myanmar, Pakistan, Thailand, Egypt, Mauritania, Nigeria, Senegal and Sudan.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).



Lesser Mouse-tailed Bat, *Rhinopoma hardwickei*

Fur grey-brown above, belly grey; smaller than the Greater Mouse-tailed Bat, feet also smaller and more delicate, but tail larger, exceeding forearm length; head and body length 5.5-6.9 cm, forearm length 5.2-6.4 cm, tail 5.6-7.8 cm; recorded from arid and semi-arid regions; roosts in groups of usually few individuals.

Distribution : India : Gujarat, Rajasthan, Delhi, Uttar Pradesh, Jammu & Kashmir, Maharashtra, Karnataka, Kerala, Tamil Nadu, Madhya Pradesh, Andhra Pradesh, Orissa, Bihar, West Bengal, Assam, Nagaland and Manipur. *Elsewhere* : Afghanistan, Myanmar, Pakistan, Thailand, Yeman, some other parts of south-west Asia, Kenya and Nigeria.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).



Lesser Mouse-tailed Bat, *Rhinopoma hardwickei*

Family EMBALLONURIDAE TOMB-BATS

Bats of this family are popularly called Tomb bats as they are frequently found to roost in tombs besides rocky crevices, old buildings, cliffs along the sea-shore, crevices in rocky deserts, trees, curled leaves and hollow logs. They feed primarily on flying insects.

These bats are also called the Sheath-tailed Bats implying the nature of their characteristic tail attachment. Their tails are loosely enclosed in the membrane at the base and completely free at the tip.

Six species of Tomb bats occur in India.

Long-winged Tomb Bat, *Taphozous longimanus*

Fur short and soft, reddish brown to black, belly lighter brown; males with gular sac; head and body length 7.3-8.6 cm, forearm length 5.5-6.2 cm; having wide habitat tolerance and found in diverse habitats ranging from arid areas to humid climes; roosts singly or in groups up to 40.

Distribution : India : From Tamil Nadu in the south, Gujarat and Rajasthan in the north and west and Tripura and Nagaland in the east. *Elsewhere* : Bangladesh, Combodia, Indonesia, Malaysia, Myanmar, Nepal, Sri Lanka and Thailand.

Conservation status : CAMP : LRlc (Nationally), DD (Globally).



Black-bearded Tomb Bat, *Taphozous melanopogon*

Colour variable, ranging from russet brown to almost black on the back, belly usually paler, males at about six month age grow a characteristic beard with usually jet black central part (for which its popular name given); no gular sac present; head and body length 6.7-8.6 cm and forearm length 6-6.8 cm; favours hilly and forested areas with enough water sources at the vicinity, like rivers, lakes and ponds; highly gregarious, colony size varying from a few individuals to a few thousands.

Distribution : *India* : Throughout India except Jammu & Kashmir. *Elsewhere* : Bangladesh, China, Indonesia, Malaysia, Myanmar, Philippines, Lesser Sunda Islands, Sri Lanka, Thailand, Vietnam and many neighbouring islands.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Naked-rumped Tomb Bat, *Taphozous nudiventris*

Hairs short, fine and dense, dark brown on dorsal surface, paler brown on ventral surface, hairs not extending on the wing-membrane on dorsal surface, humerus and forearm quite naked (for which its popular name given); males with large and females with less visible gular pouch; head and body length 9-10.5 cm and forearm length 7.1-8 cm; colony generally of a few individuals.

Distribution : *India* : Wide spread in Indian subcontinent but prefers arid and semi-arid areas. *Elsewhere* : Afghanistan, Bangladesh, Myanmar, Pakistan, also West Israel and West Africa.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Theobald's Tomb Bat, *Taphozous theobaldi*

Colour grey-brown on dorsal surface, uniform grey on ventral surface, no gular sac present; head and body-length 8.8-8.9 cm, forearm length 7.1-7.6 cm; its roost located in cave in the forests; gregarious, roosts in groups of few hundreds to a thousand.

Distribution : *India* : Rarely found in India, so far reported from Madhya Pradesh and Karnataka. *Elsewhere* : Indonesia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).

Egyptian Tomb Bat, *Taphozous perforatus*

Upper body pale grey brown, ventral surface pale mouse grey, chin always hairy, gular sac present in males; head and body length 7.1-8 cm and forearm length 5.9-6.3 cm; favours tropical thorn forests; colony size varying from few individuals to 2-3 thousands.

Distribution : *India* : Rajasthan, Gujarat and Madhya Pradesh. *Elsewhere* : Iran, South Arabia, Pakistan and, Egypt and other parts of Africa.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).



Pouch-bearing Bat, *Saccolaimus saccolaimus*

Hairs usually dark brown or black on dorsal surface, underparts usually grey brown, gular pouch well developed in males and less developed in females; head and body length 8-9.3 cm, forearm length 6.3-6.8 cm; some authorities treat this species under the genus *Taphozous*; inhabits jungle areas, rubber plantations and swamp; roosts in few individuals.

Distribution : India : Gujarat, Maharashtra, Karnataka, Kerala, Tamil Nadu, Orissa, West Bengal, Uttar Pradesh and Andaman and Nicobar islands. *Elsewhere* : Bangladesh, Indonesia, Malaysia, Myanmar, Philippines, Sri Lanka, Sulawesi, Thailand, New Guinea, Solomon islands and Australia.

Conservation status : CAMP : DD (Nationally & Globally).

Family MEGADERMATIDAE FALSE VAMPIRES

The true Vampires (Family Phyllostomatidae) which are known to feed on fresh blood do not occur in the Old World including India. Instead, the False vampires belonging to the family Megadermatidae are found in India. These bats are carnivorous and feed principally on small vertebrates like rodents, smaller bats, birds, lizards and frogs. These bats can be identified externally by the presence of large oval ears joined over forehead, distinctly bifid tragus ('inner ear') of each ear and by absence tail. The following two species of False vampires are found in India.

Greater False Vampire, *Megaderma lyra*

Fur fine, soft and moderately long, upper surface of body uniform mouse grey, faintly washed with brown, belly white; noseleaf tall about 1 cm, straight sided with simple rounded horizontal base; head and body length 7-9.5 cm, forearm length 5.6-7.1 cm; roosts in caves, temples, dilapidated buildings, underground tunnels and atties of houses; singly or in groups up to several hundreds.



Greater False Vampire
Megaderma lyra





Distribution : India : Throughout India except deserts and high Himalaya. *Elsewhere* : Afghanistan, Bangladesh, China, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam.

Conservation status : CAMP : LRlc (Nationally), DD (Globally).

Lesser False Vampire, *Megaderma spasma*

Hairs deep grey on upper surface, paler on the belly; noseleaf short about 0.6 cm with convex sides and distinctly heart-shaped base; head and body length 5.4-8.1 cm, forearm length 5.4-6.2 cm; inhabits humid and forested biomes; roosts singly or in groups of a few individuals in caves, dilapidated houses, wells and underground tunnels.

Distribution : India : Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Gujarat, West Bengal, Assam and Andaman & Nicobar islands. *Elsewhere* : Cambodia, Indonesia, Myanmar, Malaysia, Philippines, Sri Lanka, Thailand, Vietnam, Lesser Sundas and many adjacent islands.

Conservation status : CAMP : DD (Nationally & Globally).

Family RHINOLOPHIDAE HORSE-SHOE BATS

This family includes single genus *Rhinolophus*, members of which are characterised by the presence of a noseleaf with a horse-shoe shaped projection surrounding the nostril, for which these are popularly called the Horse-shoe Bats. While roosting, these bats do not close the wings alongside the body as most bats do so but wrap them around the body. Horse-shoe bats occur in diversified habitats of forested and non-forested areas at high mountains and low altitudes. These bats roost in caves, tunnels, old houses, foliage and hollow trees.

In, all 14 species of Horse-shoe Bat occur in India. Out of these two species are endemic to this country.

Greater Horse-shoe Bat, *Rhinolophus ferrumequinum*

Hairs long, soft and dense, uniform light greyish or drab brown above, lighter buffy brown below; head and body length 5.6-7.9 cm, forearm length 5.4-6.2 cm; found in the mountainous region; colony size little known.

Distribution : India : Jammu & Kashmir, Uttaranchal, West Bengal, Sikkim, Arunachal Pradesh and Nagaland. *Elsewhere* : China, Iran, Nepal, Pakistan, Japan and also to West Europe.

Conservation status : IUCN : LRnt; CAMP : VU (Nationally), DD (Globally).



Intermediate Horse-shoe Bat, *Rhinolophus affinis*

Colour ranging from buffy brown to distinctive orange, females darker; head and body length 4.6-6.8 cm; forearm length 5-5.5 cm; inhabits mountains and plains; habits little known in India.

Distribution : Uttaranchal, West Bengal (Darjeeling district), Arunachal Pradesh, Meghalaya, Nagaland, Tamil Nadu and Andaman & Nicobar islands. *Elsewhere* : Bangladesh, Bhutan, China, Indonesia, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand, Lesser Sunda and many adjacent islands.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Rufous Horse-shoe Bat, *Rhinolophus rouxii*

Fur soft and silky; colour ranging from orange to russet brown, buffy brown and grey; head and body length 4.2-6.6 cm; forearm length 4.5-5.2 cm; a forested species restricted to areas with relatively high rainfall; roosts in groups of few individuals to several hundreds.

Distribution : *India* : Himachal Pradesh, Uttaranchal, Sikkim, Arunachal Pradesh, Mizoram, West Bengal, Orissa, Andhra Pradesh, Pondicheri, Tamil Nadu, Kerala, Karnataka, Maharashtra, Goa and Madhya Pradesh. *Elsewhere* : China, Myanmar, Nepal, Sri Lanka and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).



Rufous Horse-shoe Bat, *Rhinolophus rouxii*

Lesser Horse-shoe Bat, *Rhinolophus hipposideros*

Colour ranging from pale buffy brown to darker grey brown; tail relatively long; head and body-length 3.8-4.8 cm, forearm length 3.5-4 cm; habits little known.

Distribution : *India* : Reported from Bumzov cave in Jammu & Kashmir. *Elsewhere* : Afghanistan, Iran, west to Morocco and West Europe.

Conservation status : IUCN : VU; CAMP : VU (Nationally), DD (Globally).

Least Horse-shoe Bat, *Rhinolophus pusillus*

Fur very fine and soft, colour ranging from light buffy brown to dark teak brown on dorsal surface and paler on ventral surface; head and body length 3-4 cm, forearm length 3.4-3.7 cm; habits little known.



Distribution : *India* : Uttaranchal, West Bengal, Sikkim, Arunachal Pradesh, Meghalaya, Assam, Kerala (Malabar) and Karnataka. *Elsewhere* : China, Indonesia, Lesser Sunda Islands, Malaysia, Nepal, Thailand Vietnam and many small adjacent islands.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).



Least Horse-shoe Bat,
Rhinolophus pusillus

Little Nepalese Horse-shoe Bat, *Rhinolophus subbadius*

Fur cinnamon brown above, slightly paler on ventral surface, head and body length 3.5-3.7 cm, forearm length 3.3-3.5 cm; habits little known.

Distribution : *India* : Arunachal Pradesh and Meghalaya. *Elsewhere* : Myanmar, Nepal and Vietnam.

Conservation status : IUCN : DD; CAMP : CR (Nationally), DD (Globally).

Blyth's Horse-shoe Bat, *Rhinolophus lepidus*

Hairs typically grey brown above and slightly paler below; head and body length 3.5-5.4 cm, forearm length 3.7-4.1 cm; prefers forested areas.

Distribution : *India* : Throughout the country and reported from Meghalaya, Mizoram, Nagaland, West Bengal, Bihar, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, Madhya Pradesh, Gujarat, Rajasthan, Uttar Pradesh and Delhi. *Elsewhere* : Afghanistan, China, Indonesia, Myanmar, Nepal and Thailand.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Wolly Horse-shoe Bat, *Rhinolophus luctus*

Fur dark, long and of woolly texture, usually black with paler tips; head and body length 8.5-9 cm, forearm length 7-8 cm; inhabits forests and mountainous areas; habits little known.

Distribution : *India* : Widely distributed and reported from Uttaranchal, West Bengal (Darjeeling district), Sikkim, Assam, Meghalaya, Nagaland, Bihar, Orissa, Andhra Pradesh, Tamil Nadu Kerala, Karnataka and Madhya Pradesh. *Elsewhere* : China, Indonesia, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand and Vietnam.

Conservation status : CAMP : NE.



Big-eared Horse-shoe Bat, *Rhinolophus macrotis*

Fur soft with a woolly texture, buffy brown on dorsal surface and slightly paler on ventral surface; head and body length 3.9-4.8 cm, forearm length 3.9-4.6 cm; roosting sites reported to be in caves and mines; habits little known.

Distribution : India : Uttaranchal, Arunachal Pradesh and Meghalaya. Elsewhere : China, Indonesia, Malaysia, Nepal, Pakistan, Philippines, Thailand and Vietnam.

Conservation status : CAMP : NE.

Pearson's Horse-shoe Bat, *Rhinolophus pearsonii*

Fur long, soft and woolly in texture, chestnut brown in colour; head and body length 5.1-6.4 cm, forearm length 5-5.4 cm; inhabiting mountaneous areas; habits little known.

Distribution : India : Uttaranchal, West Bengal (Darjeeling district), Sikkim, Mizoram and Meghalaya. Elsewhere : Bangladesh, Bhutan, China, Malaysia, Myanmar, Nepal, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Trefoil Horse-shoe Bat, *Rhinolophus trifoliatus*

Fur long, soft and woolly as in the Pearson's Horse-shoe Bat, but buffy brown above and below; head and body length 6.2-6.5 cm, forearm length 5-5.3 cm; inhabiting evergreen forests; habits not known.

Distribution : India : West Bengal (Darjeeling) and Assam. Elsewhere : Indonesia, Malaysia, Myanmar, Thailand and some adjacent small islands.

Conservation station : DD (Nationally & Globally).

Dobson's Horse-shoe Bat, *Rhinolophus yunanensis*

Similar to the Pearson's Horse-shoe Bat in appearance and structure of noseleaf, but larger in size, head and body length 6-6.8 cm, forearm length, 5.4-5.9 cm.

Distribution : India : Arunachal Pradesh and Mizoram. Elsewhere : China, Myanmar and Thailand.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

Following two species of Horse-shoe Bats are endemic to this country.

Mitred Horse-shoe Bat, *Rhinolophus mitratus*

Fur brown dorsally and light brown ventrally, terminal noseleaf triangular and acutely pointed; head and body length not recorded, average forearm length 5.7 cm; endemic to India, habits not known.

Distribution : India : Known from one speciemen recorded from Chaibassa in Bihar.

Conservation status : IUCN : DD; CAMP : VU.



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Andaman Horse-shoe Bat, *Rhinolophus cognatus*

Colour of fur not recorded; sella (of noseleaf) horn-like and slightly curved forward; forearm length 3.7-4 cm; endemic to India, habits not known.

Distribution : India : Confined to Andaman islands.

Conservation status : IUCN : VU; CAMP : DD (Nationally & Globally).

Family HIPPOSIDERIDAE

LEAF-NOSED BATS

The Leaf-nosed Bats are closely allied to the Horse-shoe Bats but their nose-leaves are in different form, sometimes with smaller accessory leaf-lets and with an erect transverse leaf. These bats roost in old houses, caves, tunnels, open hills, caverns, temples and, disused and dilapidated buildings. Leaf-nosed bats are represented by two genera *Hipposideros* and *Coelops* within Indian limit.

Following 13 species of *Hipposideros* occur in India, out of which 3 are endemic to India.

Dusky Leaf-nosed Bat, *Hipposideros ater*

Fur variable in colour from dull yellow, golden orange, pale grey to dark brown on dorsal side, ventral side usually paler, wings uniformly dark brown or black; head and body length 3.8-4.8 cm; forearm length 3.4-3.8 cm; found in deep wells, dark hollows in walls, cave and abandoned military establishment; roosts in groups of few individuals.

Distribution : India : Maharashtra, Karnataka, Kerala, Tamil Nadu, Orissa, Madhya Pradesh, Meghalaya and Nicobar islands. *Elsewhere* : Indonesia, Malaysia, Philippines, Sri Lanka, Vietnam, New Guinea, North-west Australia and many other small islands.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Least Leaf-nosed Bat, *Hipposideros cineraceus*

Closely resembles the Dusky Leaf-nosed Bat; fur individually variable in colour from dull mid-brown to orange on dorsal surface, ventral surface uniformly pale, almost white in some cases; head and body length 3.3-4.2 cm, forearm length 3.3-3.6 cm; in low Himalayan foot hills and North-eastern hills.

Distribution : India : Haryana, Uttaranchal, West Bengal (Darjeeling district), Arunachal Pradesh, Assam, Mizoram and Meghalaya. *Elsewhere* : Indonesia, Malaysia, Myanmar, Nepal, Pakistan, probably Philippines, Thailand and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).



Great Himalayan Leaf-nosed Bat, *Hipposideros armiger*

Large Hipposiderid, ear large, nose-leaf with four supplementary leaflets, of which outer leaf distinctly smaller, fur soft, long, dark brown on back and uniform grey brown on ventral surface; head and body length 8.2-10.5 cm and forearm length 8.5-9.5 cm.

Distribution : India : Uttaranchal, West Bengal (Darjeeling district), Sikkim, Assam, Manipur and Meghalaya in the Himalaya and North-eastern hills. *Elsewhere* : China, Malaysia, Myanmar, Nepal, Thailand, Vietnam and adjacent small islands.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Fulvous Leaf-nosed Bat, *Hipposideros fulvus*

Colour of fur varying from dull yellow, pale grey, dull brown to golden orange, large ears; head and body length 4-5 cm, forearm length 3.8-4.4 cm;



Photo Courtesy : Marimuthu G.

Distribution : India : Throughout India including Nicobar islands except for Jammu & Kashmir and North-east India. *Elsewhere* : Afghanistan, Bangladesh, Myanmar, Nepal, Sri Lanka, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Fulvous Leaf-nosed Bat,
Hipposideros fulvus

Cantor's Leaf-nosed Bat, *Hipposideros galeritus*

Fur dark brown, nose-leaf simple, head and body length 4.5-5.9 cm, forearm length 4.5-5.1 cm;

Distribution : India : Gujarat, Maharashtra, Karnataka, Madhya Pradesh and Bihar. *Elsewhere* : Indonesia, Malaysia, Sri Lanka, Thailand and some small adjacent islands.

Conservation status : CAMP : DD (Nationally & Globally).

Kelaart's Leaf-nosed Bat, *Hipposideros lankadiva*

Colour of fur ranging from pale cream to fulvous brown, orange or even bright red; head and body length 8.7-10.6 cm, forearm length 7.5-9.9 cm; favours forests and foot hills.

Distribution : India : Rajasthan, Maharashtra, Kerala, Tamil Nadu, Karnataka, Madhya Pradesh, Andhra Pradesh, Orissa, West Bengal, Tripura, Manipur, Mizoram and Meghalaya. *Elsewhere* : Sri Lanka.

Conservation status : CAMP : VU (Nationally), DD (Globally).



Diadem Leaf-nosed Bat, *Hipposideros diadema*

Large bat having tricoloured hair on the back with dark brown, grey and brown; belly slightly paler; head and body length not recorded, forearm length 5.8-6.4 cm.

Distribution : India : Known so far from Trinket island (Nicobar group) in a cave on the sea-shore. *Elsewhere* : North Australia, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam and many other small islands.

Conservation status : CAMP : NE.

Andersen's Leaf-nosed Bat, *Hipposideros pomona*

Hairs on dorsal surface mid- to dark-brown, ventral surface paler; head and body length 3.6-5.2 cm, forearm length 3.9-4.3 cm.

Distribution : India : Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Uttar Pradesh, West Bengal (Darjeeling), Sikkim, Arunachal Pradesh, Assam, Nagaland, Meghalaya and Nicobar islands (Kamorta island). *Elsewhere* : Bangladesh, China, Malaysia, Myanmar, Nepal, Thailand and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).

Horsefield's Leaf-nosed Bat, *Hipposideros larvatus*

Dorsal surface uniform brown, ears relatively large, head and body length 7.4-7.8 cm, forearm length 6.1-6.4 cm; reported to be plentiful in diurnal roosts (Bates and Harrison, 1997).

Distribution : India : Assam and Meghalaya. *Elsewhere* : Bangladesh, China, Indonesia, Malaysia, Myanmar, Thailand, Vietnam and many adjacent small islands.

Conservation status : CAMP : DD (Nationally & Globally).

Schneider's Leaf-nosed Bat, *Hipposideros speoris*

Hairs variable in colour from grey to yellowish brown or bright orange brown, palest on ventral surface and between the shoulders on the upper back; head and body length 4.6-6.2 cm and forearm length 4.5-5.4 cm; found in variety of biotopes from dry flat region to forested hills; roosts in groups of a few individuals to several hundreds.

Conservation status : India : Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa and Uttaranchal. *Elsewhere* : Sri Lanka.

Conservation status : LRnt (Nationally), DD (Globally).

The following 3 species of Leaf-nosed Bats are endemic to India.



Kolar Leaf-nosed Bat, *Hipposideros hypophyllus*

ENDEMIC

Smaller bat with greyish brown to rufous brown dorsal surface, fulvous white ventral surface, large ear and one pair of supplementary leaflets; head and body length 4.2-4.7 cm, forearm length 3.7-4 cm; endemic to India.

Distribution : India : Collected from Mysore in Karnataka and found to roost in narrow subterranean caves in granite rocks.

Conservation status : IUCN : VU; CAMP : NE.

Khajuria's Leaf-nosed Bat, *Hipposideros durgadasi*

ENDEMIC

Fur ranging from brown to reddish brown in colour on dorsal surface, whitish on ventral surface; forearm length 3.6-3.7 cm; endemic to India; found in an artificial cave in hillocks at about 200 m altitude and in small caves under huge granite boulders.

Distribution : India : Record from a village of Jabalpur in Madhya Pradesh.

Conservation status : IUCN : VU; CAMP : NE.

Leaf-nosed Bat, *Hipposideros schistaceus*

ENDEMIC

Colour pale brown; ear large, acutely pointed with posterior margin slightly concave behind the tip; supplementary leaflet rudimentary; forearm length 7.3-8.3 cm; endemic to India.

Distribution : India : Confined to Karnataka.

Conservation status : IUCN : DD; CAMP : DD (Nationally).

The Leaf-nosed Bat belonging to the genus *Coelops* is represented by a single species as follows :

Tail-less Leaf-nosed Bat, *Coelops frithi*

Small Hipposiderid bat with head and body length 3.8-5 cm, forearm length 3.7-4.2 cm; fur soft and very long, dull or darker chestnut brown; tail rudimentary, ears broad with rounded tips and convex sides; inhabiting forests and roosts in hollow trees and caves.

Distribution : India : Reported so far from Darjeeling district in West Bengal and Cherrapunji in Meghalaya. *Elsewhere :* China, Indonesia, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).



Family VESPERTILIONIDAE

EVENING BATS

This is the largest family of Chiroptera comprised of about 44 genera and 350 species (Corbet & Hill, 1992). In India it is represented by 17 genera and 58 species. Most Vespertilionids are cave dwellers. But they also take shelter in tunnels, old wells, rock crevices and under rocks, buildings, tree hollows, foliage of trees and bushes, hollow joints of bamboos, tall grasses, culverts, *etc.* Nearly all members of the family are primarily insectivorous. Some bats of the genus *Myotis* are suspected of fish-eating habits. Vespertilionids generally capture insects in flight often using well developed tail membrane as a pouch in which they manipulate large prey.

This family comprises of 6 subfamilies, of which 4 subfamilies, *viz.*, Vespertilioninae, Miniopterinae, Kerivoulinae and Murinae are represented in India.

Subfamily VESPERTILIONINAE

Genus	13
Species	45
Endemic species	2

As in the globe so also in India this subfamily includes most genera of bats. Out of 17 genera of Vespertilionids found in India 13 belong to this subfamily. Amongst these, the genus *Pipistrellus* shares maximum number of species (14) followed by the genus *Myotis* (12).

Pipistrellus are very small Vespertilionid bats. Usually these are among the first bats to appear in the evening. There is a considerable variation of habitats for these bats. Some may forage in open area and roost in houses, some forage in mountaineous forests and never roost in houses and some other associate with forests and roost in hollow trees, buildings and rock crevices. Following species of *Pipistrellus* are found in India.

Chocolate Pipistrelle, *Pipistrellus affinis*

Colour dark brown, head and body length 4.3-5.1 cm, forearm length 3.8-4.1 cm.

Distribution : India : Uttaranchal, Maharastra, Kerala and Tamil Nadu. *Elsewhere* : Bangladesh, China, Myanmar, Nepal and Sri Lanka.

Conservation status : CAMP : DD (Nationally & Globally).

Javan Pipistrelle, *Pipistrellus javanicus*

Colour chestnut brown, head and body length 4-5.5 cm, forearm length 3-3.6 cm.

Distribution : India : Andaman and Nicobar islands. *Elsewhere* : China, Korea to South-east Asia to Lesser Sunda Islands, Philippines, Japan and Russia; perhaps Australia.

Conservation status : CAMP : NE.



Babu's Pipistrelle, *Pipistrellus babu*

Dorsal colour sepia brown or olive brown, ventral colour slightly paler; forearm length 3.4 cm on average.

Distribution : India : Himachal Pradesh, Uttaranchal, Sikkim, Assam, West Bengal, Madhya Pradesh and Maharashtra. *Elsewhere* : Afghanistan, Bangladesh, Bhutan, China, Myanmar, Nepal and Pakistan.

Conservation status : CAMP : NE.

Pegu's Pipistrelle, *Pipistrellus peguensis*

Dorsal colour brown throughout, ventral colour dirty white; fur dense and long; forearm length 3.3 cm.

Distribution : India : Reported only from West Bengal (Darjeeling district). *Elsewhere* : Myanmar.

Conservation status : CAMP : NE.

Thomas's Pipistrelle, *Pipistrellus cadornae*

Colour uniform dark brown on dorsal surface and paler chestnut brown on ventral surface; head and body length 4.7-5.2 cm, forearm length 3.2-3.6 cm; reported only from the forested region.

Distribution : India : Darjeeling district of West Bengal. *Elsewhere* : Myanmar and Thailand.

Conservation status : IUCN : LRnt; CAMP : DD (National & Globally).

Kelaart's Pipistrelle, *Pipistrellus ceylonicus*

Dorsal colour ranging from grey brown to chestnut, reddish or golden brown; head and body length 4.5-6.4 cm, forearm length 3.3-4.2 cm; roosts singly or in groups up to about 200.

Distribution : India : Rajasthan, Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa, Madhya Pradesh, Bihar, West Bengal and Uttar Pradesh. *Elsewhere* : China, Indonesia, Myanmar, Pakistan, Sri Lanka and Thailand.

Conservation status : CAMP : LRLc (Nationally), DD (Globally).

Black-gilded Pipistrelle, *Pipistrellus circumdatus*

Fur black with an almost orange sheen to the head and back; ears brown/black; head and body length 9.5 cm, forearm length 4.1-4.3 cm.

Distribution : India : Meghalaya and Mizoram. *Elsewhere* : China, Indonesia, Malaysia, Myanmar and Thailand.

Conservation status : CAMP : NE.



Indian Pipistrelle, *Pipistrellus coromandra*

Fur brown on dorsal surface, ears and membrane mid- to dark-brown; head and body length 3.4-4.9 cm, forearm length 2.5-3.4 cm; colony size varying from 8 to 25.

Distribution : *India* : Almost throughout the country including Nicobar islands. *Elsewhere* : Afghanistan, Bangladesh, Bhutan, China, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Dormer's Bat, *Pipistrellus dormeri*

Fur grey-brown on ventral surface; ears and naked areas of face pale-brown; head and body length 3.9-5.5 cm, forearm length 3.2-3.6 cm; colony size with 2-24 individuals. Some workers treat this species as *Scotozous dormeri*.

Distribution : *India* : Widely distributed in Indian mainland. *Elsewhere* : Pakistan, possibly China.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Kuhl's Pipistrelle, *Pipistrellus kuhlii*

Fur buffy brown on head and back; ears pallid and translucent, a distinct white border between foot and fifth digit of each wing; head and body length 3.5-4.9 cm, forearm length 3.3-3.6 cm.

Distribution : *India* : West Bengal, Assam and Meghalaya. *Elsewhere* : South Europe through the caucasus to Kazakhstan and Pakistan, South-west Asia, most of Africa, Canary island (Spain).

Conservation status : CAMP : DD (Nationally & Globally).



Kuhl's Pipistrelle,
Pipistrellus kuhlii

Photo Courtesy : Bari Conservation International

Indian Pygmy Pipistrelle, *Pipistrellus tenuis*

The smallest pipistrelle within the Indian subcontinent with head and body length 3.3-4.5 cm, forearm length 2.5-3 cm; fur brown, ears and membrane dark and naked; colony size with 2-20 individuals. Some workers treat this species as *Pipistrellus mimus*.

Distribution : *India* : Almost throughout the country. *Elsewhere* : Afghanistan, Bhutan, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam.

Conservation status : CAMP : NE.



Mount Popa Pipistrelle, *Pipistrellus paterculus*

Body chocolate brown, wings dark brown, head and body length 4.2-4.8 cm, forearm length 3-3.1 cm.

Distribution : India : Assam, Nagaland, Manipur, Bihar and Jammu & Kashmir. *Elsewhere :* China, Myanmar and Thailand.

Conservation status : IUCN : LRnt; CAMP : LRnt (Nationally), DD (Globally).

Common Pipistrelle, *Pipistrellus pipistrellus*

Fur buffy to chestnut brown on head and back; head and body length 4-4.8 cm, forearm length 3-3.1 cm; colony size with 100-200 individuals.

Distribution : India : Jammu & Kashmir and Assam. *Elsewhere :* British Isles, South Scandinavia, West Europe to the Valga and Caucasus, Morocco, Asia Minor and Isreal to Kazakhstan, China, probably Korea, Japan and Thaiwan.

Conservation status : VU (Nationally), DD (Globally).

Savi's Pipistrelle, *Pipistrellus savii*

Fur silky in texture and dark brown on upper surface; head and body length 4.7-6 cm, forearm length 3.2-3.8 cm.

Distribution : India : Reported so far from Cherrapunji in Meghalaya.

Conservation status : CAMP : DD (Nationally & Globally).

The genus *Myotis* is the most widely distributed group of bats throughout the globe and absent only in arctic, subarctic and antarctic regions. In India it is represented by the following 12 species.

Hairy-faced Bat, *Myotis annectans*

Also popularly called the Intermediate Bat; hairs mid- to dark brown on dorsal surface, face covered with hairs; head and body length 4.5-4.8 cm, forearm length 4.5-4.6 cm.

Distribution : India : West Bengal, Assam and Nagaland. *Elsewhere :* Thailand.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

Lesser Mouse-eared Bat, *Myotis blythii*

A large species of the genus *Myotis*, head and body length 6.5-8 cm, forearm length 5.5-5.8 cm; fur woolly in texture, dorsal surface buffy brown, ears tall, roosts in caves and building; colony size with few individuals to several thousands.

Distribution : India : Known so far from Jammu & Kashmir, Himachal Pradesh, Uttaranchal and Rajasthan. *Elsewhere :* Afghanistan, North Africa, China and West Europe.

Conservation status : CAMP : DD (Nationally & Globally).



Daubenton's Bat, *Myotis daubentonii*

Also known as the Water Bat; hairs "dull dark drabby brown" with a "shooty-grey tint"; head and body length 4.1 cm and forearm length 3.4 cm.

Distribution : *India* : Reported only from Meghalaya. *Elsewhere* : China, Korea, Vietnam; also distributed in the Palaearctic zone from western Europe to Japan.

Conservation status : CAMP : DD (Nationally & Globally).

Hodgson's Bat, *Myotis formosus*

Fur ginger brown mid-dorsally and orange brown on the flanks; forearm length 4.4-4.9 cm.

Distribution : *India* : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Punjab, Maharashtra, Bihar, West Bengal, Sikkim, Assam, Mizoram and Meghalaya. *Elsewhere* : Afghanistan, China, Indonesia, Japan, Korea and Philippines.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Van Hasselt's Bat, *Myotis hasseltii*

The bat dark brown on dorsal surface; head and body length 5.2-5.8 cm, forearm length 3.7-4 cm.

Distribution : *India* : Reported only from West Bengal (Kolkata and North 24-Parganas districts). *Elsewhere* : Indonesia, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).

Horsefield's Bat, *Myotis horsfieldii*

Fur almost black on dorsal surface, deep brown with greyish tint on ventral surface; head and body length 4.9-5.9 cm, forearm length 3.7-4 cm.

Distribution : *India* : Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Madhya Pradesh, Meghalaya and Andaman & Nicobar islands. *Elsewhere* : China, Indonesia, Malaysia, Philippines, Thailand and perhaps Sri Lanka and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Kashmir Cave Bat, *Myotis longipes*

Fur greyish brown on dorsal surface and ventral surface creamy; head and body length 4.3-4.6 cm, forearm length 3.6-3.9 cm; colony size about 200.

Distribution : *India* : Reported so far from Jammu & Kashmir and Meghalaya (Khasi Hills). *Elsewhere* : Afghanistan, Iran and probably Pakistan and Vietnam.

Conservation status : IUCN : VU; CAMP : EN (Nationally), DD (Globally).



Burmese Whiskered Bat, *Myotis montivagus*

Body dark brown; face densely covered with hairs; head and body length 5.6-6.2 cm, forearm length 4.4-4.6 cm.

Distribution : India : Andhra Pradesh, Kerala, Karnataka and Mizoram. *Elsewhere* : China, Indonesia, Malaysia, Myanmar and Thailand.

Conservation status : IUCN : LRnt; CAMP : NE.

Nepalese Whiskered Bat, *Myotis muricola*

The colour of the bat darker, upper lip with a hairy fringe; head and body length 4.1-4.7 cm, forearm length 3.1-3.7 cm.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Sikkim, Bihar, West Bengal and Meghalaya. *Elsewhere* : Afghanistan, China, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Thailand, Vietnam and many other adjacent islands.

Conservation status : CAMP : DD (Nationally & Globally).

Whiskered Bat, *Myotis mystacinus*

The colour of the bat russet brown on dorsal surface, upper lip with a hairy fringe as in the Nepalese Whiskered Bat; head and body length 3.8-4.7 cm, forearm length 3.4-3.6 cm; roosts singly or in groups usually up to 8.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, West Bengal, Sikkim and Assam. *Elsewhere* : China, Nepal, Pakistan, Vietnam; also in the Palaerctic region from western Europe and northern Africa to Korea and Japan.

Conservation status : DD (Nationally & Globally).

Mandelli's Mouse-eared Bat, *Myotis sicarius*

Fur deep chocolate brown on dorsal surface, gingered coloured on ventral surface; head and body length 5-5.6 cm, forearm length 4.8-5.4 cm.

Distribution : India : West Bengal (Darjeeling district) and Sikkim. *Elsewhere* : Nepal.

Conservation status : IUCN : VU; CAMP : VU (Nationally), DD (Globally).

Siligori Bat, *Myotis siligorensis*

Also known as the Himalayan Whiskered Bat and the Terai Bat; hairs dark brown on dorsal surface, fringe of fine hairs on upper lip; forearm length 3-3.1 cm; roosts in small groups.

Distribution : India : Uttaranchal, West Bengal (Darjeeling district), Sikkim and Meghalaya. *Elsewhere* : China Indonesia, Malaysia, Nepal, Thailand and Vietnam.



Conservation status : DD (Nationally & Globally).

Four species of the genus *Eptesicus* are found in India

Thick-eared Bat, *Eptesicus pachyotis*

Fur dark brown above, paler below, head short, muzzle very short and broad, ears triangular with rounded tips; head and body length 5.5-5.6 cm, forearm length 3.8-4 cm; habits not known.

Distribution : *India* : Reported only from Khasi hills in Meghalaya and Mizoram. *Elsewhere* : Possibly Bangladesh, China, Myanmar and Thailand.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally)

Serotine, *Eptesicus serotinus*

Fur silky, dark brown on dorsal surface, throat and belly paler, glandular swellings of muzzle black and nearly naked, ears dark, moderately long with about six transverse ridges, tail long; head and body length 8 cm, and forearm length 5.4-5.5 cm; remains solitary or in small number.

Distribution : *India* : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Rajasthan, Assam and Nagaland. *Elsewhere* : Afghanistan, China, Pakistan, Thailand; also from West Europe to Korea and in Africa.

Conservation status : CAMP : DD (Nationally & Globally).

Northern Bat, *Eptesicus nilssoni*

Fur pale straw grey on dorsal surface, straw white on ventral surface with hair roots almost black; forearm length 4.1 cm. Some authority treat it as *E. gobiensis*.

Distribution : *India* : Reported only from Jammu & Kashmir. *Elsewhere* : West and East Europe to East Siberia and North-west China; north beyond Arctic circle in Scandinavia, south to Bulgaria, Iraq, Iran, Nepal and Japan.

Conservation status : CAMP : DD (Nationally)

Sombre Bat, *Eptesicus tatei*

Hairs long, dense, intensively black throughout, ears oval with rounded tip; head and body length 4.8 cm, forearm length 4.3 cm; endemic to India.

Distribution : *India* : Darjeeling district in West Bengal.

Conservation status : IUCN : DD; CAMP : DD (Nationally).

Genus *Scotophilus* is externally comparable to *Eptesicus*. It is represented by two species in India. Both the species are widespread in this country, as follows.



Asiatic Greater Yellow House Bat, *Scotophilus heathi*

Head and back olive grey-brown; throat, chest and belly pale yellow buff; head and body length 6.7-9.3 cm, forearm length 5.5-6.5 cm; remains solitary or roosts in groups up to 50.

Distribution : India : Almost throughout India except in Jammu & Kashmir. *Elsewhere :* Afghanistan, Bangladesh, China, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam.

Conservation status : LRlc (Nationally), DD (Globally).

Asiatic Lesser Yellow House Bat, *Scotophilus kuhlii*

Fur chestnut brown above and paler below without the characteristic yellowish tinge of *S. heathi*; head and body length 6-7.8 cm, forearm length 4.4-5.6 cm; colony size varying from few individuals to hundred.

Distribution : India : Throughout the country including Nicobar islands. *Elsewhere :* Afghanistan, Pakistan to China, south to Sri Lanka and Malaysia, south-east to Philippines and Indonesia.

Conservation status : LRnt (Nationally), DD (Globally).

Both the genera *Plecotus* and *Scotomanes* are also represented in India with two species.

Brown Long-eared Bat, *Plecotus auritus*

Fur buffy-brown on dorsal surface, paler grey-buff on ventral surface, ear elongated, oval with anterior and posterior ears evenly convex and tip bluntly rounded off; small bat, head and body length 4-4.5 cm, forearm length 3.6-4 cm.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, West Bengal (Darjeeling district), Meghalaya and Sikkim. *Elsewhere :* China, Ireland, Japan, Nepal, Norway, Pakistan and Spain to Sakhalis Island (Russia).

Conservation status : CAMP : DD (Nationally & Globally).

Grey Long-eared Bat, *Plecotus austriacus*

Similar to the Brown Long-eared Bat in morphology but fur pale on dorsal surface with hair tips creamy buff; head and body length 4.7-5.3 cm, forearm length 4.1-4.5 cm; inhabits forests and mountains.

Distribution : India : Jammu & Kashmir. *Elsewhere :* China; also through much of the southern palaeartic from south-west Europe to Mongolia and Pakistan.

Conservation status : CAMP : DD (Nationally & Globally).



Harlequin Bat, *Scotomanes ornatus*

Orange to orange-brown in colour with a mixture of paler hairs, belly with a mixture of dark brown and creamy white hairs, muzzle with whiskers, ears large, brown and naked on both surfaces; head and body length 6.4-8.5 cm, forearm length 5.6-6.1 cm.

Distribution : India : West Bengal (Darjeeling district), Sikkim, Arunachal Pradesh, Nagaland, Manipur and Meghalaya. *Elsewhere* : China, Myanmar, Thailand, Vietnam and probably Bangladesh.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

Large-eared Yellow Bat, *Scotomanes emarginatus*

Hairs tri-coloured, dark ferruginous brown at base, light yellowish brown at tip and buff in between; ears large with broadly rounded tips; forearm length 5.5 cm; endemic to India.

Distribution : India : Known only by a type specimen, for which locality was given as India; exact locality and state not recorded.

Conservation status : IUCN : DD; CAMP : NE.

Three species of *Nyctalus* occur in India. These are popularly known as noctules.

Common Noctule, *Nyctalus noctula*

Robust bat with glossy cinnamon or dark brown fur, ears short, tragus club-shaped, wings long, narrow, leathery and opaque; head and body length 6.8-8 cm, forearm length 5-5.7 cm; inhabits caves, human habitations and tree hollows in the Himalaya up to about 2000 m.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, West Bengal (Darjeeling district), Sikkim and Nagaland. *Elsewhere* : China, Iran, Myanmar, doubtfully Malaysia, Nepal, Pakistan, Singapore, Thailand, Vietnam; also western Europe to Japan

Conservation status : CAMP : DD (Nationally & Globally).

Mountain Noctule, *Nyctalus montanus*

Fur uniform brown; head and body length 7 cm, forearm length 4.2-4.3 cm.

Distribution : India : Inhabits Western Himalaya in Himachal Pradesh and Uttaranchal. *Elsewhere* : Afghanistan, Nepal and Pakistan.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

Lesser Noctule, *Nyctalus leisleri*

Fur pale to dark brown on dorsal surface, ventral surface buffy brown; hairs distinctly bicoloured, bases of hairs being darker than tips; head and body length 6.2-7.2 cm, forearm length 4.2-4.5 cm.



Distribution : India : Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Pakistan, West to Russia, West Europe, North Africa, Madeira and Canary Island.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

The following six species of Vespertilioninae belonging to six genera occur in India.

Eastern Barbastelle, *Barbastella leucomelas*

Head and back black, ventral surface blackish brown, ears also blackish brown, squared and joined at forehead, tragus triangular and large; head and body length 4.7-5.1 cm, forearm length 3.8-4.2 cm; generally roosts singly.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Rajasthan, West Bengal (Darjeeling district), Sikkim, Assam, Meghalaya and Mizoram. *Elsewhere* : Afghanistan, China, Indonesia, Iran, Japan, Nepal, Pakistan, Egypt and Isreal.

Conservation status : CAMP : DD (Nationally & Globally).

Tickell's Bat, *Hesperoptenus tickelli*

Fur light greyish-yellow to bright golden brown on dorsal surface, lighter and greyer on ventral surface; muzzle broad and blunt; ears yellowish-brown, moderately large, tragus crescent shaped; head and body length 6.1-7.9 cm, forearm length 5-6 cm; roosts singly or in small parties.

Distribution : India : Gujarat, Rajasthan, Maharastra, Goa, Karnataka, Tamil Nadu, Andhra Pradesh, Orissa, Madhya Pradesh, Bihar, West Bengal and Andaman islands. *Elsewhere* : Bangladesh, possibly China, Myanmar, Nepal, Sri Lanka and Thailand.

Conservation status : CAMP : DD (Nationally & Globally).

Great Evening Bat, *La io*

Externally resembles a large Serotine; fur uniform grey brown above and matt grey brown on ventral surface, ears broad with tip rounded off; forearm length 7-7.7 cm.

Distribution : India : Reported so far from Meghalaya (Mausmai cave near Cherrapunji) only. *Elsewhere* : China, Thailand and Vietnam.

Conservation status : IUCN : LRnt; CAMP : En (Nationally), DD (Globally).

Hemprich's Long-eared Bat, *Otonycteris hemprichii*

Fur pale on dorsal surface and considerably pale grey on ventral surface; ears large, pale yellowish brown; head and body length 6-7.6 cm, forearm length 6.4-6.5 cm; usually solitary; but, a cluster of 18 females reported.

Distribution : India : Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Afghanistan, Iran, Pakistan, also west to Turkey, Isreal, Algeria and Nigeria.

Conservation status : CAMP : VU (Nationally), DD (Globally).



Desert Yellow Bat, *Scotoecus pallidus*

Fur pale brown on dorsal surface, tinged with fawn and paler greyish brown on ventral surface, ears moderate in size with rounded tips; forearm length around 3.8 cm.

Distribution : India : Himachal Pradesh, Uttar Pradesh, Bihar and West Bengal (from Kolkata). *Elsewhere* : Pakistan.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Bamboo Bat, *Tylonycteris pachypus*

Also known as the Club-footed Bat and the Flat-headed Bat; fur golden brown on head and upper back, throat golden brown, belly slightly darker; head and body length 3.4-4.6 cm, forearm length 2.6-2.9 cm; colony with 10-20 individuals.

Distribution : India : Karnataka, Kerala, West Bengal (Darjeeling district), Sikkim, Tripura, Manipur, Mizoram, Meghalaya and Andaman islands. *Elsewhere* : Bangladesh, China, Indonesia, Laos, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Subfamily KERIVOULINAE

Genus	1
Species	3

In India this subfamily is represented by single genus *Kerivoula*. The members of this genus are popularly known as the Painted Bats and the Woolly Bats which are characterised by long, woolly hair, delicate form and, large and somewhat pointed ears. The following species of *Kerivoula* occur in India.

Painted Bat, *Kerivoula picta*

Fur bright orange to tawny red on dorsal surface and buff colour on ventral surface with a distinct orange hue on flanks; wings bright, muzzle hairy, nostril naked; ears large and bluntly pointed; head and body length 4.5-4.8 cm, forearm length 3.1-3.7 cm.



Painted Bat, *Kerivoula picta*



Distribution : India : Rajasthan, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa, West Bengal, Bihar, Sikkim and Assam. *Elsewhere* : Bangladesh, China, Indonesia, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Hardwicke's Forest Bat, *Kerivoula hardwickei*

Fur mid- to dark brown on dorsal surface, greyer on ventral surface; ears longer, tip rounded; head and body length 3.9-5.5 cm, forearm length 3.1-3.6 cm.

Distribution : India : Jammu & Kashmir, Karnataka, Madhya Pradesh, Orissa, West Bengal, Assam, Meghalaya, Nagaland and Mizoram. *Elsewhere* : Bangladesh, China, Indonesia, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam and other adjacent small islands.

Conservation status : CAMP : DD (Nationally & Globally).

Papillose Bat, *Kerivoula papillosa*

Dorsal fur glossy brown, ventral surface grey brown, head whitish buff; head and body length 5.3-5.5 cm, forearm length 4-4.2 cm.

Distribution : India : Reported only from West Bengal (Kolkata). *Elsewhere* : Bangladesh, Indonesia, Malaysia, Thailand and Vietnam.

Conservation status : CAMP DD (Nationally & Globally).

Subfamily MURININAE

Genus	2
Species	7
Endemic species	1

Indian bats belonging to this subfamily comprise of two genera *Murina* and *Harpiocephalus*.

Members of the genus *Murina* are known as Tube-nosed Bats, 6 species of which occur in India.

Greater Tube-nosed Bat, *Murina leucogaster*

Fur ferruginous red on dorsal surface and very pale on ventral surface; nostrils tubular and protuberant; head and body length 4.7 cm, forearm length 4 cm.

Distribution : Reported so far from West Bengal (Darjeeling). *Elsewhere* : China, Japan, Korea, Laos, Myanmar, Pakistan, Thailand, Russia and Vietnam.

Conservation status : CAMP : DD (Nationally & Globally).

Little Tube-nosed Bat, *Murina aurata*

Hairs golden brown on dorsal surface and hairs on ventral surface with dark roots and pale grey tips; nostrils tubular, protuberant and opening outwards; head and body length 4.5 cm and forearm length 2.7-2.9 cm.

Distribution : India : Sikkim and Meghalaya. *Elsewhere* : Nepal to South-west China, Myanmar and Thailand.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

Round-eared Tube-nosed Bat, *Murina cyclotis*

Dorsal hairs orange with pale grey hair roots, ventral hairs pale, head and body length 3.8-5 cm, forearm length 2.9-3.4 cm.

Distribution : India : Tamil Nadu, Andhra Pradesh, West Bengal, Sikkim, Mizoram and Meghalaya. *Elsewhere* : China, Laos, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka and Thailand.

Conservation status : CAMP : DD (Nationally & Globally).



Photo Courtesy T P Bhattacharya. ZSI

Round-eared Tube-nosed Bat, *Murina cyclotis*

Peter's Tube-nosed Bat, *Murina grisea*

Dorsal hairs dark-brown with tips yellowish brown, ventral surface ashy grey; forearm length 3.2 cm; endemic to India.

Distribution : India : So far known by the single specimen (holotype) only from the Jerripanni, Kumaon Hills, Uttaranchal; one male specimen recently collected from Saiep, Lunglei district, Mizoram by the Zoological Survey of India at about 1500 m altitude (Bhattacharya, 2002). Bhattacharya (*op. cit.*) reported this species as *Harpiola grisea*.

Conservation status : IUCN : EN; CAMP : VU.

Hutton's Tube-nosed Bat, *Murina huttoni*

Dorsal hairs brown and ventral hairs pale with darker roots; head and body length 4.8 cm and forearm length 3.2-3.5 cm.

Distribution : India : Jammu & Kashmir, Uttaranchal, West Bengal, Assam and Meghalaya. *Elsewhere* : China, Malaysia, Thailand and Vietnam

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).



Scully's Tube-nosed Bat, *Murina tubinaris*

Hairs grey or grey brown above and hairs of ventral surface with dark grey roots and paler grey tips; head and body length 3.9-4.8 cm, forearm length 3-3.4 cm.



Scully's Tube-nosed Bat, *Murina tubinaris*

Distribution : India : Jammu & Kashmir, Himachal Pradesh, West Bengal, Sikkim, Arunachal Pradesh, Meghalaya and Mizoram. *Elsewhere* : Laos, Myanmar, Pakistan, Thailand and Vietnam.

Conservation status : CAMP : VU (Nationally), DD (Globally).

Harpiocephalus is popularly known as the Hairy-winged Bat. It is a monotypic genus containing the only species which is distributed in India.

Hairy-winged Bat, *Harpiocephalus harpia*

Dorsal fur bright rufous, ventral fur buffy grey, wings uniform brown and forearm lightly haired; head and body length 6-7.5 cm, forearm length 4.4-5 cm.



Hairy-winged Bat, *Harpiocephalus harpia*

Distribution : India : Kerala, Tamil Nadu, Andhra Pradesh, West Bengal, Sikkim, Assam, Meghalaya and Mizoram. *Elsewhere* : China, Indonesia, Malaysia, Myanmar and Vietnam.

Conservation status : CAMP : DD.



Subfamily MINIOPTERINAE

Genus	1
Species	3

Members of this subfamily in India belong to the following species under the genus *Miniopterus*. These are popularly known as the Long-fingered Bats since their third digits are highly enlarged.

Schreiber's Long-fingered Bat, *Miniopterus schreibersi*

Fur long and dense; colour russet brown or blackish brown on dorsal surface, slightly paler on ventral surface with greyer tinge; limbs long with a highly enlarged third digit; ears small, rounded and not rising above head; head and body length 4.7-6.5 cm and forearm length 4.4-4.9 cm.

Distribution : *India* : Maharashtra, Karnataka, Tamil Nadu, Uttaranchal, West Bengal, Sikkim, Arunachal Pradesh and Meghalaya. *Elsewhere* : southern Europe and Morocco through the Caucasus and Iran to most of China and Japan, Nepal, Sri Lanka, Indonesia, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : IUCN : LRnt; CAMP : LRlc (Nationally), DD (Globally).

Nicobar Long-fingered Bat, *Miniopterus pusillus*

Fur black throughout; smaller in size; forearm length 3.9-4 cm.

Distribution : *India* : Nicobar islands, Tamil Nadu and Karnataka. *Elsewhere* : China, Indonesia, Moluccas, Nepal, Philippines, Thailand; perhaps New Guinea.

Conservation status : CAMP : DD (Nationally & Globally).

Sanborn's Long-fingered Bat, *Miniopterus magnater*

Externally almost similar to the Schreiber's Long-fingered Bat, but its skull length (more than 1.7 cm) and condylobasal length (more than 1.68 cm) considerably larger.

Distribution : *India* : North-east India. *Elsewhere* : South-east China to Indonesia and New Guinea.

Conservation status : CAMP : NE.



Family MOLOSSIDAE

FREE-TAILED BATS

Members of this family comprise of small to medium sized insectivorous bats with stout tails, projecting conspicuously beyond the narrow interfemoral membrane. These bats roost in caves, tunnels, crevices of rock cliffs, under boulders and in hollow trees.

Four species of Free-tailed bats belonging to 3 genera occur in India. Out of these one is endemic to this country.



Barapede cave, habitat of Wroughton's Free-tailed Bat

European Free-tailed Bat, *Tadarida teniotis*

Uniform deep brown fur on dorsal surface, grey on belly; face dog-like with large eyes, ears also large with very broadly rounded tips; large species, head and body length 7.4-9 cm, forearm length 5.8-6.4 cm.

Distribution : India : So far known from India by a single specimen collected from Kurseang (Darjeeling district), West Bengal. *Elsewhere* : China, France, Japan, Morocco, Portugal and Spain.

Conservation status : CAMP : DD (Nationally & Globally).



Egyptian Free-tailed Bat, *Tadarida aegyptiaca*

Externally similar to the European Free-tailed Bat but distinctly smaller in size; medium-sized species, head and body length 6.1-7.7 cm, forearm length 4.6-5.2 cm.

Distribution : *India* : Rajasthan, Gujarat, Maharashtra, Karnataka, Kerala, Tamil Nadu, Madhya Pradesh, Bihar and West Bengal. *Elsewhere* : South Africa to Nigeria, Algeria, and Egypt to Yemen and Oman, east to Pakistan and Sri Lanka.

Conservation status : CAMP : LRnt (Nationally), DD (Globally)

Wrinkle-lipped Free-tailed Bat, *Chaerephon plicata*

Fur dark clove brown on dorsal surface, paler on ventral surface, ears connected by a membrane across forehead; head and body length 6.6-7.1 cm, forearm length 4.3-5 cm; some authority consider this genus as the subgenus of *Tadarida*.

Distribution : *India* : Punjab, Rajasthan, Maharashtra, Goa, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Uttar Pradesh, West Bengal and Meghalaya. *Elsewhere* : Sri Lanka to South China and Vietnam, south-east to Philippines, Indonesia and islands of Indian Ocean.

Conservation status : CAMP : DD (Nationally & Globally).

Wroughton's Free-tailed Bat, *Otomops wroughtoni*

Dorsal fur rich glossy dark, chocolate brown on crown of head, back and rump with thin white border on each flank, ventral surface dull brown; head and body length 8.7-9.9 cm, forearm length 6.3-6.7 cm; possesses a distinct grey collar and a small gular sac; a small moustache present below circular nostrils; endemic to India,

Distribution : *India* : Known only by a single population in Barapede Cave near Balgaun in Karnataka, situated in a plateau of a forested valley at 800 m altitude.

Conservation status : IUCN : CR; CAMP : CR.



Wroughton's Free-tailed Bat, *Otomops wroughtoni*

Order PRIMATES

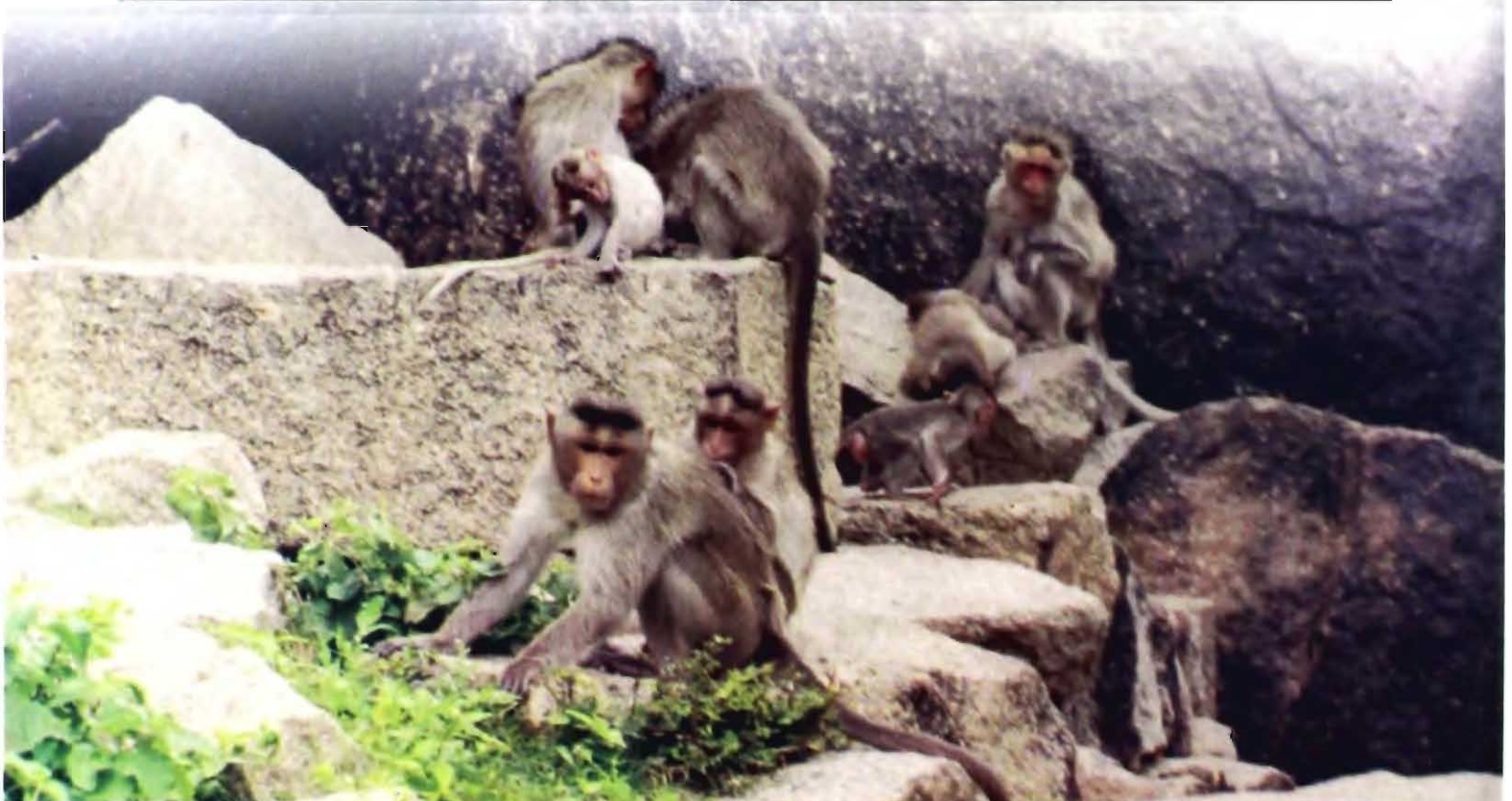
Photo Courtesy : Kaushik Deuti, Z.S.I.



Primates include lemurs, monkeys, apes and man. Their limbs are elongated, hands and feet enlarged and with five digits, thumb and big toe or both usually opposable to other fingers for climbing, picking up and seizing objects.

Non-human Indian Primates are represented by the following three families :

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Loridae	2	2	–
2.	Cercopithecidae	3	12	3
3.	Hylobatidae	1	1	–
	Total	6	15	3



Family LORIDAE

LORIS

Lorises possess grasping hands and feet like all primates. But, they are quite distinct from other primates in having their second toe furnished with claw and other toes with flat nails. Two species of Loris occur in India.

Slender Loris, *Loris tardigradus*

A small slender bodied primate as its name signifies; head and body length 20-25 cm, tail lacking; colour varying from yellowish grey to dark brown above and underparts silvery grey to buff; eyes round and large surrounded by dark fur; its lean and lanky appearance, longer and slender limbs, more closely set eyes, more pointed snout and absence of tail make it distinct from the Slow Loris; dark spinal stripe never prominent and sometimes absent; inhabits dry evergreen, semievergreen, and deciduous forests, also in open woodlands and swamp forests; nocturnal in habit, arboreal and terrestrial, secretive in nature; remains hidden among foliage or in a hole or in crevices during the day and comes out at dusk; feeds on leaf buds, fruits, insects and small prey.



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

Slender Loris, *Loris tardigradus*

Distribution : India : Andhra Pradesh, Tamil Nadu, Karnataka and Kerala. Elsewhere Sri Lanka.

Conservation status : IUCN : VU; IWPA : Sch. I; RDB : VU; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).



Slow Loris, *Nycticebus coucang*

Bigger and stouter than the Slender Loris, head and body length 30-40 cm; tail rudimentary, round headed and round eyed; eyes encircled with dark brown fur; a brown stripe on the middle of its back terminating on the crown makes it distinctive; inhabits dense moist evergreen, semi-evergreen and deciduous forests; nocturnal in habit; arboreal, very rarely terrestrial; food same as that of the Slow Loris.

Distribution : India : North-eastern states and West Bengal. *Elsewhere* : Bangladesh, China, Malaysia Myanmar, Philippines, Vietnam and Thailand.

Conservation status : IUCN : DD; IWPA : Sch. I; RBD : IK; CITES : Appendix II; CAMP : LRnt.



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

Slow Loris, *Nycticebus coucang*

Family CERCOPITHECIDAE MONKEY

Members of this family are popularly known as the Old World monkeys, comprising of two broad categories : the **macaques** belonging to the subfamily Cercopithecinae and the **langurs** belonging to the subfamily Colobinae.

The **macaques** are sturdy and squat and possess cheek pouches. On the other hand langurs are tall, slim, lanky and without any cheek pouch.

Subfamily CERCOPITHECINAE MACAQUES

Genus	1
Species	7
Endemic species	2

Indian macaques constitute 7 species as follows, of which two, namely, the Bonnet Macaque, *Macaca radiata* and the Lion-tailed Macaque, *Macaca silenus* are endemic to this country. Incidentally, both the species are distributed in the Peninsular India.

Bonnet Macaque, *Macaca radiata*

ENDEMIC

Medium sized, long tailed, total body length 40-60 cm; a bonnet of long dark hairs radiating in all directions and forming a whorl on its crown makes it distinctive from all other Indian macaques and gives its popular name; endemic to India; diurnal in habit; arboreal, also terrestrial; inhabits jungles and villages, both in foot hills and plains, also in urban areas; feeds largely on vegetarian diets, like fruits, berries, grains, leaves and shoots; a very common macaque of Southern India, often seen with strolling showmen in that region.

Distribution : India : Andhra Pradesh, Karnataka, Kerala, Maharastra and Tamil Nadu.

Conservation status : IWPA : Sch. II; CITES : Appendix II; CAMP : I.RIc



Photo Courtesy : T P Bhattacharya ZSI

Bonnet Macaque, *Macaca radiata*

Rhesus Macaque, *Macaca mulatta*

Total body length 45-60 cm; tail short; orange fur on loin and rump makes it distinctive from other Indian macaque; diurnal in habit; terrestrial, also arboreal; adapted to wide range of habitats from dense forests to near desert and from sea-level to high mountain

ranges of 2500 m, also lives in close association with humans; feeding habit same as that of the Bonnet Macaque.

Distribution : India : Most wide spread monkey of Northern India, also distributed in North-eastern India. *Elsewhere :* Afghanistan, Nepal, Pakistan, Bhutan to Thailand including China.

Conservation status : IUCN : LRnt; IWPA : Sch. II; CITES : Appendix II; CAMP : I.RIc (Nationally), DD (Globally).



Photo Courtesy : J. P. Sati, Z.S.I.

Rhesus Macaque, *Macaca mulatta*



Assamese Macaque, *Macaca assamensis*

Resembles the Rhesus Macaque superficially and in body length, but lack of orange red hue on its loin and rump makes it distinctive; tail parallel to the ground, not erect; diurnal in habit; terrestrial, also arboreal; inhabits dense deciduous and evergreen forests; primarily herbivorous as other Indian macaques.

Distribution : India : North-east India including Tripura also frequents Sikkim and West Bengal (Darjeeling district). *Elsewhere* : Nepal to Vietnam and South China.

Conservation status : IUCN : VU; IWPA : Sch. II; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Assamese Macaque
Macaca assamensis



Photo Courtesy : Sandeep K. Tiwari

Pig-tailed Macaque, *Macaca nemestrina*

A stout macaque, head and body length 45-60 cm; head broad and rather flat with a dark cap of short neatly parted hair radiating from the centre of the crown; tail short pig-like, erect and arched, black above and yellowish brown below; diurnal in habit; terrestrial and arboreal; frequents evergreen forests at foot hills and at elevation from about 75-1300 m; feeds largely on fruits and leaves; insects and caterpillars also constitute its diet.



Pig-tailed Macaque, *Macaca nemestrina*

Distribution : India : Assam, Meghalaya, Nagaland and Tripura. *Elsewhere* : Bangladesh extending east-wards to Vietnam, north-east to South China and south-east to Malaysia, Indonesia and Laos.

Conservation status : IWPA : Sch. II; RBD : VU; CITES : Appendix II, CAMP : DD (Nationally & Globally).

Stump-tailed Macaque, *Macaca arctoides*



Stump-tailed Macaque, *Macaca arctoides*

Largest Indian Macaque with head and body length 50-70 cm; body dark brown above and pale below, very short tail as its popular name signifies, scarcely 2.5 cm long; diurnal and terrestrial; inhabits hilly forested areas; diet same as that of the Pig-tailed Macaque.

Distribution : India : North-east India including Tripura. *Elsewhere* : From Bangladesh east-wards to Vietnam, north-east to China and south-east to Malaysia.

Conservation status : IUCN : VU; IWPA : Sch. II; RBD : VU; CITES : Appendix II, CAMP : LRnt (Nationally), DD (Globally).

Lion-tailed Macaque, *Macaca silenus*



ENDEMIC

Medium to large-sized macaque with head and body length 46-61 cm; baboon-like in appearance with lengthened face; colour of body and face glossy black, dark grey or brownish grey mane surrounding the temples and cheeks; a short tail, with a tuft of hair at tip resembles a lion's tail, making it distinct

and giving its popular name; endemic to India; diurnal and arboreal; inhabits dense evergreen and semi-evergreen forests; feeds on leaves, buds, fruits, insects and caterpillars.

Distribution : India : Confined to southern Western Ghats in the states of Tamil Nadu, Karnataka and Kerala between 9°30'N and 15°N latitudes.

Conservation status : IUCN : EN; IWPA : Sch. I; RBD : EN; CITES : Appendix I; CAMP : EN.



Lion-tailed Macaque, *Macaca silenus*



Crab-eating Macaque, *Macaca fascicularis*



Crab-eating Macaque, *Macaca fascicularis*

Medium sized macaque, dusky or fawn in colour, head and body length about 50 cm, tail very long, but a little shorter than the head and body; diurnal; terrestrial and arboreal; inhabits tropical rain forests, also invades coastal mangroves and coconut plantations; feeds on wild fruits, banana, papaya, etc; also known to feed on crabs and other shell-fishes lying on sea-shore, giving its popular name.

Distribution : *India* : Occurs only in three islands of the Nicobar group, namely, Katchal, Little Nicobar and Great Nicobar islands. *Elsewhere* : Cambodia, Myanmar to Indonesia, Laos, Philippines and Vietnam.

Conservation status : IUCN : LRnt; IWPA : Sch. I; RBD : VU; CITES : Appendix II; CAMP : CR (Nationally), DD (Globally).

Subfamily COLOBINAE

LANGURS

Genus	2
Species	5
Endemic species	1

Indian langurs comprise of 5 species, of which the Nilgiri Langur, *Trachypithecus johnii* is endemic to India.

Hanuman Langur, *Semnopithecus entellus*

Black-faced monkey, with long limbs and long tail; body colour and body-size differ from place to place; head and body length 60-70 cm; diurnal; terrestrial and arboreal; inhabits almost all habitats including human settlement, excepting high mountains and desert; lives on purely vegetarian diets including fruits, buds shoots and leaves.



Hanuman Langur, *Semnopithecus entellus*

Distribution : *India* : Most wide-spread monkey and distributed throughout the country except North-east India and western part of Gujarat. *Elsewhere* : China, Nepal, Pakistan and Sri Lanka.

Conservation status : IUCN : LRnt; IWPA : Sch. II; CITES : Appendix I; CAMP : LRlc (Nationally), DD (Globally).

Capped Langur, *Trachypithecus pileatus*

Robust built, 60-70 cm in body length, long tail, crown of erect, long, coarse hairs directed backwards from the forehead forming a cap, giving this monkey this popular name; colour of its back dusky grey to ashy grey; ventral surface, cheeks and sides of neck pale fulvous to golden brown; face black; diurnal and arboreal in habit, inhabits dense hilly forests; food similar to that of the Hanuman Langur.

Distribution : *India* : North-east India. *Elsewhere* : Bangladesh, China and Myanmar.

Conservation status : IUCN : EN; IWPA : Sch. I; RBD : VU; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).



Photo Courtesy : Kaushik Deuti, Z.S.I

Capped Langur, *Trachypithecus pileatus*

Golden Langur, *Trachypithecus geei*

Photo Courtesy : Kaushik Deuti, Z.S.I.



Golden Langur, *Trachypithecus geei*

Rich golden to cream buff in colour with black face, head and body length 48-60 cm; ill-developed half whorl on forehead with hair radiating backwards and side ways; tail long and slightly tassellated; diurnal and arboreal; lives on vegetarian diet.

Distribution : *India* : In the Himalayan foothills along Assam-Bhutan border between Sankosh and Manas rivers in India and Bhutan. *Elsewhere* : Bhutan.

Conservation status : IUCN : EN; IWPA : Sch. I; RBD : VU; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).

Phayre's Leaf Monkey, *Trachypithecus phayrei*

Dark ashy-brown in colour, darker on head, limbs and tail tip; back from shoulders to loin silvery; face black but lips, area around mouth and eyes white, for which it is also popularly called the Spectacled Monkey; head and body length 45-60 cm; diurnal, terrestrial and arboreal; inhabits deciduous and secondary forests; food comprising leaves, flowers and fruits.

Distribution : India : Assam and Tripura. *Elsewhere* : Bangladesh, China, Laos, Myanmar, Thailand and Vietnam.

Conservation status : IWPA : Sch. I; RDB : VU; CITES : Appendix II; CAMP : EN (Nationally), DD (Globally).



Phayre's Leaf Monkey,
Trachypithecus phayrei

Nilgiri Langur, *Trachypithecus johnii*

Glossy black or blackish brown in colour, head yellowish brown; tail longer, hairs on head long, non-radiating, forming mane; head and body length 60-80 cm; endemic to India; diurnal; terrestrial and arboreal; inhabits dense forests at an altitude 600-1300 m and feeds on leaves, buds, fruits, insects and small invertebrates.

Distribution : India : Confined to the Western Ghat (Karnataka, Kerala and Tamil Nadu).

Conservation status : IUCN : VU; IWPA : Sch. I, RDB : VU; CITES : Appendix II; CAMP : VU.



Nilgiri Langur, *Trachypithecus johnii*

ENDEMIC

Family HYLOBATIDAE

APE

This family includes the only species of living ape inhabiting our country, the Hoolock Gibbon. Gibbons are distinctive from macaques and langurs in having very long arms and lacking tail. The thumb of this family of apes is unique among higher primates in having the basal part freed from the palm and extending from near the wrist. They are tree-dwellers and move primarily by brachiation, extending their long arms above the head to suspend and propel the body.



Hoolock Gibbon, *Bunopithecus hoolock*

Slender-bodied, tailless, head and body length 90-94 cm; arms much longer even more than double the length of its legs; males and young females black, mature females yellowish grey; small and round head with whitish band across the eye brows, giving its popular name as the White-browed Gibbon; diurnal and arboreal; inhabits evergreen, semi-evergreen and deciduous forests mainly along the hill slopes; feeds on leaves, twigs, flowers, fruits and even insects.

Distribution : India : North-east India between the Brahmaputra and Salween rivers of Myanmar. *Elsewhere* : Bangladesh, China and Myanmar.

Conservation status : IUCN : EN; IWPA : Sch. I; RDB : EN; CITES : Appendix I; CAMP : EN.

Conservation status : IWPA : Sch. IV; CITES



Hoolock Gibbon, *Bunopithecus hoolock*

Order CARNIVORA

The carnivores include small to large mammals (13.5-280 cm in head and body length) with usually five (sometimes four) toes, all clawed. Some like cats and dogs are digitigrade, walking only on toes and others, such as, bears are plantigrade, walking on soles with heels touching the ground. Their skulls are heavy with strong facial musculature. The carnassials (last upper premolar and first lower molar) often work together as a specialised shearing mechanism.



Indian carnivores are represented by 7 families with 59 species.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Canidae	3	6	–
2.	Hyaenidae	1	1	–
3.	Felidae	10	15	–
4.	Herpestidae	1	7	1
5.	Mustelidae	8	16	1
6.	Ursidae	4	5	2
7.	Viverridae	7	9	–
	Total	34	59	4



Family CANIDAE

WILD DOGS, JACKAL, FOX, WOLF



This Dog family is characterised by well-shaped head, long pointed muzzle, large erect ears, slender sinewy limbs and bushy tail. Their feet are perfectly digitigrade with blunt, nearly straight and non-retractile claws. In general, members of this family are hunters and live on animals which they prey. Sometimes they take vegetable food and some of them like jackals live on carrion. Indian canids include Wolf, Jackal, Wild Dog and three species of Foxes as follows :

Wolf, *Canis lupus*

Largest member of the Dog family; head and body length 90-105 cm, looking like an Alsatian dog; large skull, powerful jaws, arching brows and elevated forehead make it distinct from other members of this family; colour of the coat variable, usually sandy fawn, stippled with black; inhabits in small packs in rocky hills, dry open country around human habitation, deserts and barren uplands; both diurnal and nocturnal; usually hunts during night; antelope, fox, hare, rodents, *etc.*, form its main prey.

Distribution : India : Throughout India except the extreme south. *Elsewhere* : Throughout the northern hemisphere, North America south to 20°N, in Mexico, Europe, Asia including Arabian Peninsula and Japan excluding Cambodia, Laos and Vietnam.

Conservation status : IWPA : Sch. I, Part 1; RBD : VU; CITES : Appendix I, CAMP : LRnt (Nationally), DD (Globally).



Wolf, *Canis lupus*

Asiatic Jackal, *Canis aureus*

Closely related to wolf, but smaller in build, head and body length 60-75 cm; lacks elevated forehead and arching brows; colour of coat variable and generally with a mixture of black and white, washed with buff around the shoulder, ears and legs; also popularly called the Golden Jackal; adapted to live in every environment; both diurnal and nocturnal in habit; food consists of carrion, wild and domestic animals, birds and even fruits.

Distribution : *India* : Throughout the country. *Elsewhere* : Afghanistan, Central South Western and South Asia, North and East Africa, South-eastern Europe, Iran, Nigeria, Tangania, Thailand, Transcaucasus, Sri Lanka.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : LRlc (Nationally).



Asiatic Jackal, *Canis aureus*

Wild Dog or Dhole, *Cuon alpinus*

Midway between wolf and jackal in size, head and body length about 90 cm; having distinctive reddish-brown coat; jaws short and powerful, ears rounded, tail black-tipped and bushy, molar teeth 6 (7 in wolf and jackal); both diurnal and nocturnal; inhabits open forests with grassy meadows and preys upon Sambar, Chittal, Wild sheep, Musk deer, pigs, goats, etc., in a pack of 2-30 individuals.

Distribution : *India* : Throughout the country from high altitudes of the Himalaya to the plains. *Elsewhere* : Bhutan, Cambodia, China, Indonesia, Korea, Laos, Malaysia, Manchuria, Mangolia, Nepal, Pakistan, Russia, Tibet and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. II, Part II; CITES : Appendix II; CAMP : LRnt.



Wild Dog or Dhole, *Cuon alpinus*

Indian Fox, *Vulpes bengalensis*

Grey coloured slender-limbed; back of its ears also grey (never black), tail tip black; head and body length 45-60 cm; avoids dense forests; inhabits scrubs in plains and rocky areas and common near cultivation; nocturnal in habit, feeds on termites, crabs, reptiles, field rats, *etc.* and even fruits.

Distribution : *India* : Throughout the country. *Elsewhere* : Nepal and Pakistan.

Conservation status : IUCN : DD; IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : LRnt (Nationally), DD (Globally).

Indian Fox, *Vulpes bengalensis*



Common Red Fox, *Vulpes vulpes*

Reddish in colour, as its popular name signifies; the back of its ears characteristically black and tail white-tipped making it distinct from the Indian Fox; head and body length 60-70 cm; nocturnal in habit; feeds on birds, small mammals, also picks up scraps of discarded food and offal near human habitation.

Distribution : *India* : Found only in the sub-Himalayan tracts of the country from Kashmir to Sikkim as well as in the arid region of Rajasthan and Gujarat. *Elsewhere* : Throughout Palaearctic region, North America, Australia, Continental Asia, Cambodia, Laos, Vietnam, Japan, Europe, Palaearctic Africa.

Conservation status : IWPA : Sch. II. Part II.; RBD : VU; CITES : Appendix-III; CAMP LRnt (Nationally), DD (Globally).



Common Red Fox, *Vulpes vulpes*

Blanford's Fox, *Vulpes cana*

Small fox with extremely soft fur and, long very bushy black-tipped tail; head and body length less than 50 cm.

Distribution : India : Reported only once from the Rann of Kutchch, Gujarat (Ranjitsinh, 1985). Its occurrence in India is doubtful. *Elsewhere :* Pakistan, Afghanistan, Iran and Turkestan.

Conservation status : CITES : Appendix II.



Blanford's Fox, *Vulpes cana*

Family HYAENIDAE

HAENA

This family is noteworthy in its anatomical features which place it between dog and cat families. Its build, strong and long forelimbs, perfectly digitated feet and non-retractile claws are dog-like. But its structure of skull, teeth and other several anatomical structures are cat-like. The following species of Hyaena is found in India.

Striped Hyaena, *Hyaena hyaena*

Dirty grey to cream buff in colour with blackish transverse stripes on body and limbs; head and body length 90-110 cm; sharply recognised by its broad head, heavy jaws, strong fore-quarter, sloping back to weak hind quarters, a heavy crest of long hairs all over the neck and back and a bushy tail; jaws tremendously powerful, enabling it to crack up and eat thick limb bones of large herbivores, killed by tigers; scavenger in habit, principal food consists of caracasses of animals killed by beast of prey or died of diseases;



Striped Hyaena, *Hyaena hyaena*

occasionally kills some animals that it can overpower; nocturnal in habit and inhabits scrub, dry open jungle, open hills and ravines where caves or holes available for shelter.

Distribution : India : Extending south to Nilgiri hills, north to lowland of Kashmir, east to West Bengal and west to Gujarat. *Elsewhere :* Afghanistan, Algeria, CIS countries, Egypt, Ethiopia, Iran, Iraq, Israel, Kenya, Libya, Mali, Morocco, Nepal, Nigeria, Pakistan, Saudi Arabia, Sierra Leone, Somalia, South Africa, Sudan, Tanzania

Conservation status : IUCN : LRnt; IWPA : Sch. III; CAMP : LRnt (Nationally), DD (Globally).



Family FELIDAE

CATS

The cats are magnificent among carnivores in having perfectly developed teeth and claw for striking and holding prey and to bite and tear the flesh with precision. They are also excellently agile to capture their prey swiftly and to kill and consume them. Tiger, Lion, Leopard, Clouded Leopard, Snow Leopard and Cheetah are popularly termed as great cats. On the other hand Jungle Cat, Fishing Cat, Desert Cat, Leopard Cat and few others are known as lesser cats.

However, there is no clear basis justifying such popular classification. Because, among lesser cats the Lynx which is found in Kashmir and the Golden Cat which inhabits Sikkim within Indian limit are almost as large as and heavier than the smallest of the great cats, the Clouded Leopard.

GREAT CATS

Out of 15 species of Indian Cats 5 species belong to great cats. It is needed to mention here that one great cat, the Cheetah, *Acinonyx jubatus* was quite common in India in recent past and is still found mainly in Africa and South-Western Asia. It has now become extinct in this country. Its last record in India was in 1951 and 1952 from near Hyderabad and Chandragiri respectively in Southern India. It looks like a long-limbed slim build leopard with head and body length little above 90 cm. It is yellowish, having solid round black spots all over the body and tail; A dark, black streak runs down the inner corner of each eye to the upper lip. The characters which make it distinct from other great cats are : small head, narrow deep chest and body, long limbs and partially retractile claws. It is the fastest animals on legs and can attain a speed of 110-120 km per hour within a distance of about 370 m.





The following are living Indian great cats.

Tiger, *Panthera tigris*

Most graceful in build amongst the cat, 260-300 cm in total length including tail; possesses rich reddish yellow to orange coat marked with black stripes; tail black ringed and ears black on outside with prominent white spot; lives in varied habitats like humid evergreen forests, dry open jungle, grassy swamps of the terrai and mangrove swamps of the Sundarbans; nocturnal and crepuscular in habit, excellent swimmer, usually

haunts between sunset and dawn, covers long distance during haunting; haunts deer, nilgai, wild pigs, even gaur, buffalo and elephants; also feeds on fowl, fish, reptiles, etc.; in absence of natural prey or if ill or injured it may adopt cattle lifting and man-eating habit.

Distribution : *India* : Almost throughout India in suitable pockets except in the desert region. *Elsewhere* : Bangladesh, Bhutan, China, Laos, Indonesia, Korea, Malaysia, Myanmar, Nepal, Thailand, Vietnam and CIS Countries.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RBD : VU; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).



Tiger, *Panthera tigris*

Lion, *Panthera leo*

It is the only great cat which is gregarious, sexually dimorphic and possesses a long tassel of hair at the tail tip. Total length of adult males including tail 270-300 cm, females little smaller; gracious looking animal with pale yellowish brown to sandy grey coat devoid of any marking; male adorned with a light or dark coloured shaggy mane; nocturnal

in habit; prefers open dry deciduous forests and haunts larger prey by night like antelope, deer, pig, cattle, etc.

Distribution : *India* : Its race, the Asiatic Lion, *Panthera leo persica* is now restricted only to the Gir forest of Gujarat. *Elsewhere* : Botswana, Ethiopia, Kenya, Malawi, Mali, Mozambique, Namibia, Senegal, Somalia, South Africa, Sudan, Uganda, Zambia, Zimbabwe.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RBD : EN; CITES : Appendix I; CAMP : CR.



Lion, *Panthera leo*



Leopard; Panther, *Panthera pardus*

Much smaller than tiger and lion; total body length including tail 170-215 cm; ground colour highly variable from pale yellow, warm grey, rich tawny to rufous fawn; its coat



Leopard; Panther, *Panthera pardus*

sleek and short-haired and, marked with close-set black rosettes, distributed all over the sides of body and tail except ringed tail tip; spots down the middle of the back and on head, limbs and belly solid black (not rosettes); nocturnal in habit; inhabits diversified habitats like hills, plains, thick forests, scrubs and jungles near human habitation; an expert tree climber; preys include cattle, deer, monkey, antelope as well as birds, reptiles, crabs.

Distribution : *India* : Throughout India in suitable pockets. *Elsewhere* : Afghanistan, Algeria, Angola, Arabia, Botswana, Cameroon, Central African Republic, Congo, Chad, China, Egypt, Ethiopia, Gabon, Guinea-Bissau, Indonesia, Iran, Iraq, Kenya, Korea, Liberia, Laos, Malwai, Malaysia, Mauritania, Morocco, Mozambique, Myanmar, Nambibia, Nepal,

Niger, Nigeria, Pakistan, Senegal, Sierra Leone, Somalia, South Africa, Sri Lanka, Sudan, Tanzania, Thailand, Tunisia, Turkey, Uganda, CIS countries, Vietnam, Zaire, Zambia, Zimbabwe.

Conservation status : IWPA : Sch. I, Part I; RBD : VU; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).

Clouded Leopard, *Neofelis nebulosa*

A long, thick-limbed and heavy jawed great cat; its tail thick and considerably long, about half its total length from head to tail tip; total body length including tail about 60-110 cm; general colour varying from grey to earthly brown with darker trapezoidal or irregular rosettes on its body; head, underparts and limbs also spotted; tail with dusky rings, cut by a longitudinal band near its anterior part; mainly arboreal and nocturnal; inhabits mostly the dense evergreen and sub-Himalayan tropical forests; haunts deer, pigs, antelopes and even small birds; also lifts goats and dogs from villages.

Distribution : *India* : Sikkim, Arunachal Pradesh, Nagaland, eastern part of Assam and West Bengal. *Elsewhere* : Cambodia, China, Indonesia, Malaysia, Myanmar, Nepal, Taiwan, Thailand and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RBD : EN; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Clouded Leopard, *Neofelis nebulosa*





Snow Leopard, *Uncia uncia*

Resembles the Leopard in general appearance but smaller in size; total body length including tail 170-200 cm; squarish head with high forehead, vertical chin and short muzzle make it distinctive; usually paler grey, sometimes with slight rufous or buff;

ventral colour white, occasionally with few light spots; coat beautiful, fur soft and thick; paler rosettes present all over the body and tail, solid spots found on head, nape and lower part of limbs; inhabits snow-capped high altitudes of the Himalaya at about 3000-4000 m signifying its popular name; nocturnal and crepuscular in habit; haunts markhor, tahr, ibex, marmots, hares and birds usually during the night; also lifts goats, sheep and ponies from hill slope postures and villages.

Distribution : India : From Jammu & Kashmir to Sikkim and Arunachal Pradesh. *Elsewhere* : Afghanistan, Bhutan, China, CIS Countries, Mongolia, Nepal and Pakistan.



Photo Courtesy : JP Sati, Z.S.I.

Snow Leopard, *Uncia uncia*

Conservation status : IUCN : EN; IWPA : Sch. I., Part I; RBD : EN; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).

LESSER CATS

The following 10 speceis of lesser cats are found in India.

Golden Cat, *Catopuma temmincki*

Largest of all oriental lesser cats; total body length 120 cm; golden brown to dark brown or grey in colour without having any pattern; however, faint stripe present on nape, throat and inner side of fore leg; face markings give the animal a striking appearance, possesses a conspicuous horizontal white or buff cheek stripe, sometimes edged with black, running below the eye to behind the gape; conspicuous white stripes on the inner side and along lower margin of the eye; nocturnal in habit; inhabits dense forests and preys on sheep, goats, birds and poultry.

Distribution : India : Sikkim and North-east India. *Elsewhere* : Bangladesh, Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. I; RBD : EN; CITES : Appendix I; CAMP : NE.



Golden Cat, *Catopuma temmincki*

Eurasian Lynx, *Lynx lynx*

Another large Lesser Cat with total body length 85-90 cm; colour pale slaty grey to isabelline, occasionally with faint spots on flanks and limbs; long erect tufts of hair on tips of its ears makes it distinctive; tail short less than a quarter of its head and body length, hairs on cheek form a distinct ruff on the face; found at high altitude of the Himalaya between 270-3400 m under dense cover of tall grasses and scrubs; crepuscular in habit; preys on hares, marmots and birds.

Distribution : *India* : Gilgit and Ladak in Jammu & Kashmir within Indian limit. *Elsewhere* : Taiga forests, from Scandinavia through East Siberia and Sakhalin; from China through montane Europe in Balkans, Carpathians, Pyreneans and Alps; reintroduced to French Vosges and Jura Mountains, Swiss Alps, Austria and Yugoslavia, Afghanistan, Nepal, Pakistan and Tibet.

Conservation status : IUPA : Sch. I., Part I; RDB : EN; CITES : Appendix II; CAMP : EN (Nationally), DD (Globally).



Eurasian Lynx, *Lynx lynx*

Caracal, *Caracal caracal*

Medium sized cat with broad head and long legs; total body length 60-70 cm; possesses long erect tuft of black hairs on the tip of its ears like the Lynx; but differs by its longer tail (about the one-third of the head and body length) and in absence of ruff hairs around its face; uniformly reddish sandy grey above, fading into buff or white below; inhabits arid and semi-arid region; nocturnal in habit; haunts ground birds, small mammals and even buck and chinkara occasionally.

Distribution : *India* : Gujarat, Madhya Pradesh and Uttar Pradesh. *Elsewhere* : Aden, Afghanistan, Algeria, Angola, Arabia, Botswana, Egypt, Ethiopia, Gabon, Iran, Iraq, Israel, Kenya, Kuwait, Libia, Malawi, Mauritania, Morocco, Mozambique, Namibia, Niger, Pakistan, Senegal, Somalia, South Africa, Sudan, Syria, Tanzania, Turkey, Turkmenistan, Uganda, Zaire, Zambia, Zimbabwe.

Conservation status : IUPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : LR (Nationally), DD (Globally).



Caracal, *Caracal caracal*



Jungle Cat, *Felis chaus*

Medium sized cat, total body length 60 cm; long legs and comparatively short tail; colour varying from yellowish grey to tawny rufous and the undersurface paler; limbs often marked with transverse bars; tail black at tip and near distal end with few black markings; inhabits bushy jungle, scrubs, forests and grasslands; also encroaches outskirts



Jungle Cat, *Felis chaus*

of villages and even old buildings; both nocturnal and diurnal; preys on a variety of small mammals and birds; also encroaches villages to feed on poultry.

Distribution : India : Most common lesser cat occurring throughout India. *Elsewhere :* Afghanistan, Algeria, Arabia, Benin, China, Egypt, Iran, Iraq, Israel, Kenya, Malawi, Morocco, Mozambique, Myanmar, Nepal, Pakistan, Sri Lanka, Syria, Thailand Vietnam, Yemen, Zambia, Zimbabwe.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Desert Cat, *Felis silvestris*

Almost the size of a domestic cat; total body length 45-60 cm, sandy to pale yellowish in colour infused with grey; numerous black spots on its coat make it distinct; distal half of its tail ringed with black; a pair of cheek stripes and a number of dark transverse lines on outer side of limbs present; found in scrub jungle in arid and semi-arid region; both diurnal and nocturnal; preys on rodents and birds.

Distribution : India : Maharashtra, Rajasthan, Gujarat (Kutch) and parts of Madhya Pradesh. *Elsewhere :* Afghanistan, Algeria, Angola, Arabia, Botswana, Chad, China, Egypt, Ethiopia, France, Germany, New Guinea, Iran, Iraq, Morocco, Mozambique, Namibia, Pakistan, Poland, Senegal, South Africa, Spain, Sudan, Syria, Tanzania, Tunisia, Turkistan, United Kingdom, Zambia, Zimbabwe; introduced to Australia, Brazil, Canada and Madagascar.

Conservation status : RBD : EN, CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).



Desert Cat, *Felis silvestris*



Pallas's Cat, *Otocolobus manul*

As large as small sized domestic cat; total body length 50-55 cm; with broad head, low forehead, widely separated short ears; tail long, thick, with broad terminal tuft; fur very long, soft and thick having a silvery grey to yellowish buff hue; crepuscular in habit; known to live among rocks, prey small mammals like foxes, marmots and birds.

Distribution : India : Found only in Ladak (Jammu & Kashmir). **Elsewhere :** Caspian sea to Himalaya, Transbaikalia, Afghanistan, China, Iran, Mongolia, Pakistan and Tibet.

Conservation status : IWPA : NT; RBD : IK; CITES : Appendix II; CAMP : NE.



Pallas's Cat, *Otocolobus manul*

Marbled Cat, *Pardofelis marmorata*

Resembles a miniature Clouded Leopard; total body length 45-60 cm, little larger than a domestic cat; tail very long almost equal to the length of head and body; head short, broad and more rounded; one black stripe running from upper margin of each eye and

black stripes on the cheek; coat adorned with large and small irregular blotches, displaying a marbled pattern on the flanks, giving its popular name; prefers thick forests in colder climates, arboreal and nocturnal in habit; feeds on small mammals and birds.

Distribution : India : Sikkim, Darjeeling district of West Bengal, Arunachal Pradesh and Meghalaya. **Elsewhere :** China, Indonesia, Malaysia, Myanmar, Nepal to Vietnam and Thailand.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RBD : EN; CITES : Appendix I; CAMP : I.Rnt (Nationally), DD (Globally).



Marbled Cat,
Pardofelis marmorata



Leopard Cat, *Prionailurus bengalensis*

Resembles a miniature leopard in colour and pattern, but its spots bold without forming rosettes on the flank; about the size of a domestic cat, total body length about 60 cm, limbs longer, tail about half the length of head and body and distinctly ringed towards its tip; yellowish above, white below and ornamented with numerous black and rusty spots; a forest cat, also lives near human habitation; prefers tree-hollows for shelter; nocturnal in habit; preys upon birds and small animals, also destructive to poultry.

Distribution : *India* : North-western, central and northern states. *Elsewhere* : Afghanistan, Bangladesh, China, Cambodia, Indonesia, Japan, Korea, Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Taiwan, Thailand, CIS countries and Vietnam.

Conservation status : IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).



Leopard Cat, *Prionailurus bengalensis*

Rusty-spotted Cat, *Prionailurus rubiginosus*

Smaller than a domestic cat; total body length 35-48 cm; rufescent grey in colour and patterned with brown bars and spots, arranged in more or less regular lines; dark brown markings on head and shoulders; four dark lines running from the eyes and base of the nose over head; a pair of cheek stripes also present; inhabits grassland, scrub and jungles near the vicinity of villages; nocturnal in habit; feeds on small mammals and birds.

Distribution : *India* : Andhra Pradesh, Pondichery, Tamil Nadu, Madhya Pradesh, Maharashtra, Gujarat, Rajasthan, Jammu & Kashmir. *Elsewhere* : Sri Lanka.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : IK; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).



Rusty-spotted Cat, *Prionailurus rubiginosus*

Fishing Cat, *Prionailurus viverrinus*

Stout build medium sized harsh coated cat with elongated head and short limbs; total body length 70-80 cm; tail short, about one-third the length of head and body; tawny grey to brownish mouse grey in colour; body markings consisting of a series of elongate spots, arranged in longitudinal rows; 6-8 black lines running from forehead to neck; a pair of cheek strikes also present; usually found near water, prefers reed beds and marshy banks of rivers, lakes and back waters; nocturnal in habit; preys on fishes, tortoises, monitor lizards and small mammals.

Distribution : *India* : Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, Uttar Pradesh, West Bengal and Assam.
Elsewhere : Bangladesh, China, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Taiwan, Thailand and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CAMP : VU (Nationally), DD (Globally).



Fishing Cat, *Prionailurus viverrinus*

Family VIVERRIDAE CIVETS AND BINTURONG

Civets show some resemblances with cats in structure and in manner they haunt their prey by taking them in surprise and stalking them stealthily or pouncing on them from behind. Some of the civets like the Tiger Civet and the Spotted Linsang possess retractile claws with well protected sheath. But, in some species claws may be bare and retractile. Civets are, however, considerably distinct from cats in having long body, short limbs, long and slender jaws, comparatively feeble canine teeth and, shorter and less powerful claws.

Indian Civets comprise of the following 9 species, of which 2 species, the Jerdon's Palm Civet and the Malabar Civet are endemic to this country.

Photo Courtesy : Rati Ram, ZSI,
(A specimen in NRS Museum, ZSI, Dehra Dun)



Common Palm Civet, *Paradoxurus hermaphroditus*



Large Indian Civet, *Viverra zibetha*

A typical Civet-like build; head and body length 80 cm; dark grey in colour with yellowish or brown wash; dark bands on chest and shoulder forming loops and rosettes on hind quarters, possesses an erectile crest of long black hairs running down the centre of the back; inhabits forests under bushes or in scrub jungles; nocturnal in habit; preys on birds and small mammals, also raids poultry.

Distribution : India : Himachal Pradesh, Sikkim, West Bengal and North-eastern states. *Elsewhere :* Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand and Vietnam.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : VU (Nationally), DD (Globally).



Large Indian Civet, *Viverra zibetha*

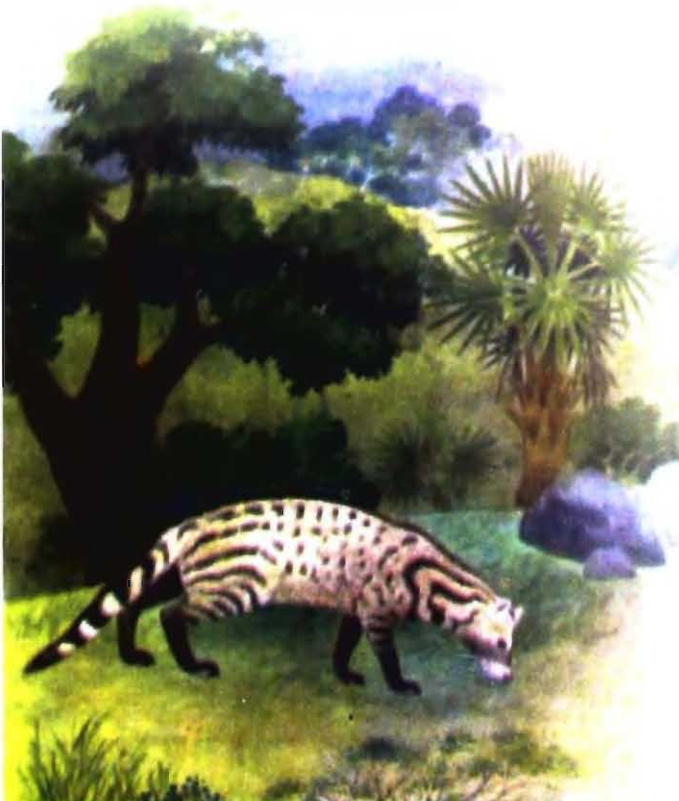
Malabar Civet, *Viverra civettina*

Apparently similar to the Large Indian Civet in size; head and body length 75-80 cm; but differs from it in having naked sole with interdigital webs and a crest of black erectile hairs on the back from shoulder to the whole length of tail; its ground colour yellowish

and its hinder portion marked with large black spots instead of stripes; yellow rings of tail incomplete; endemic to India; inhabits degraded lowland forests and occasionally elevated forest tracts; nocturnal in habit; feeding habit same as that of the Large Indian Civet; very destructive to the poultry.

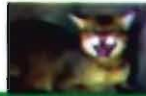
Distribution : India : Confined to coastal districts of Tamil Nadu, Kerala and Karnataka.

Conservation status : IUCN : CR; IWPA : Sch. I, Part II; RDB : EN; CITES : Appendix III; CAMP CR.



Malabar Civet, *Viverra civettina*

ENDEMIC



Small Indian Civet, *Viverricula indica*

Smaller than the Large Indian Civet, head and body length 45-60 cm; also lacks dorsal crest; tawny grey or greyish brown with black spots, arranged almost in rows in the



Small Indian Civet, *Viverricula indica*

flanks; usually possesses some cross bars on the neck; nocturnal in habit; inhabits grass and under bushes, also found in villages and towns.

Distribution : *India* : Throughout the country. *Elsewhere* : Bangladesh, Cambodia, China, Hong Kong, Indonesia, Laos, Malaysia, Myanmar, Pakistan, Sri Lanka, Taiwan, Thailand and Vietnam.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : LRnt (Nationally), DD (Globally).

Spotted Linsang, *Prionodon pardicolor*

Also known as the Tiger Civet; the smallest Indian Viverrid, head and body length 35-40 cm; very beautiful in appearance in having rich and fulvous coloured body with large black spots arranged in longitudinal rows; tail with 8-10 dark rings, separated by equal number of pale rings; nocturnal in habit; inhabits hill forests from 150 m-1850 m, preys on insects, birds and small mammals.



Spotted Linsang, *Prionodon pardicolor*

Distribution : *India* : Sub-Himalayan region in the North-eastern states, Sikkim and West Bengal. *Elsewhere* : China, Indonesia, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).

Common Palm Civet, *Paradoxurus hermaphroditus*

Black or blackish brown in colour with long coarse hair, under wool whitish, buff or rich yellow, usually possesses a white patch below the eye; head and body length 45-60 cm; inhabits forests and around human settlement; nocturnal and omnivorous in habit; efficient climber and haunts prey in trees, roofs as well as on ground; efficient ratters, feeds on rats, squirrels, birds and their eggs, small reptiles and even frogs and crabs; also having the habit of climbing up palm tree during night and drinking toddy from the pots, fixed by toddy tappers, giving its popular name as the Toddy Cat.



Common Palm Civet, *Paradoxurus hermaphroditus*

Distribution : *India :* Almost throughout the country except desert part of Rajasthan and Gujarat and the Himalaya. *Elsewhere :* Bhutan, Cambodia, China, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, New Guinea, Philippines, Singapore, Sri Lanka, Thailand, Vietnam, Sulawesi, Moluccas and Aru Islands.

Conservation status : IWPA : Sch. II, Part II; CAMP : LRIc (Nationally), DD (Globally).

Jerdon's Palm Civet, *Paradoxurus jerdoni*

Body colour deep brown, pattern obscure, giving its another popular name the Brown Palm Civet; head and body length 45-60 cm; tail proportionately longer and tail tip pale brown; endemic to India; inhabits wet tropical evergreen forests and coffee plantations; nocturnal in habit, feeds on birds, small mammals, insects and even fruits.



Jerdon's Palm Civet, *Paradoxurus jerdoni*

Distribution : *India :* Confined to forested tracts of Western Ghats in Karnataka, Kerala and Tamil Nadu.

Conservation status : IUCN : VU; IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : VU.

Masked Palm Civet, *Paguma larvata*

Body colour grey and under parts white, under wool brownish or grey; head and body length 60 cm; without any spot or stripe on its body; possesses white whiskers; facial markings comprising usually a white band on forehead and nose and another beneath the ears passing over the cheeks giving its popular name; inhabits forests of hills and mountains and takes shelter in tree holes; nocturnal in habit; primarily fruit-eaters; also hunts small animals and birds like other civets.

Distribution : *India* : Western, Central and Eastern Himalaya, North-eastern states and Andaman islands. *Elsewhere* : China, Cambodia, Formosa, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, Pakistan, Singapore, Tibet, Taiwan, Thailand and Vietnam.

Conservation status : IUPA : Sch. II, Part II; CITES : Appendix III; CAMP : L.R.Ic (Nationally), DD (Globally).



Photo Courtesy Sandeep K. Tiwan

Masked Palm Civet, *Paguma larvata*

Binturong, *Arctictis binturong*

Body colour black, grizzled with white or buff, giving it a greyish look; possesses bear-like long shaggy coat and tufted ears, giving it a popular name, the Bear Cat; head and body length 75-90 cm; tail very long, thick and muscular, thicker at the base and clothed with bristly hair; inhabits dense tropical forests from foot-hills to temperate region up to 2000 m; nocturnal in habit and feeds on birds, small mammals, insects and fruits.

Distribution : *India* : Hills of North-eastern states and Sikkim. *Elsewhere* : Bangladesh, Bhutan, China, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand and Vietnam.

Conservation status : IUPA : Sch. I, Part I; RDB : EN; CITES : Appendix III; CAMP : DD (Nationally & Globally).



Binturong, *Arctictis binturong*

Small-toothed Palm Civet, *Arctogalidia trivirgata*

Buff-brown in colour; three brown or black longitudinal stripes on its back and median white streak on muzzle giving it another popular name as the Three-striped Palm Civet; a white patch present on chest; head and body length 43.2-53.2 cm; habits similar to other civets.

Distribution : India : North-eastern states. *Elsewhere* : Bangladesh, China, Indonesia, Laos, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : CAMP : VU (Nationally), DD (Globally).



Photo Courtesy : Alain Compost, WWF

Small-toothed Palm Civet, *Arctogalidia trivirgata*

Family HERPESTIDAE

MONGOOSES

Mongoose are long-bodied and short-limbed carnivores having a sharp snout and a trailing bushy tail. They can be conveniently differentiated from the civets by the presence of small almost semicircular ears which never project over head or nape and, long digging claws and in lacking scent glands. In habits also mongooses are quite different from civets. The mongooses make head long attack on their prey while the civets haunt stealthily like the cats and attack their prey by surprise.

The following 7 species of mongooses occur in India of which the Marsh Mongoose is endemic to this country.

Grey Mongoose, *Herpestes edwardsii*

Tawny yellowish-grey without having any stripe on the side of its neck; fur grizzled and coarse; head and body length 45 cm, tail also of same length; tip of tail white or yellowish red; both diurnal and nocturnal; inhabits scrub jungles, open fields and cultivated fields; preys on rats, mice, snakes, lizards, frogs, insects and other small animals.

Distribution : *India* : Throughout India. *Elsewhere* : Afghanistan, Bahrain, Indonesia, Iran, Japan, Kuwait, Malaysia, Nepal, Pakistan, Saudi Arabia and Sri Lanka.

Conservation status : IWPA : Sch. IV;
CITES : Appendix III; CAMP : LRlc (Nationally), DD (Globally).



Grey Mongoose, *Herpestes edwardsii*

Photo Courtesy : Shomita Mukherjee,
WII, Dehra Dun

Ruddy Mongoose, *Herpestes smithii*

Similar to the Grey Mongoose in length but possesses reddish-brown tinge on head, neck and shoulders; its tip of tail black; its food and habits similar to the those of Gray Mongoose.

Distribution : *India* : Delhi in the north, Rajasthan in the west, West Bengal in the east and southwards through Eastern and Western Ghats. *Elsewhere* : Sri Lanka.

Conservation status : IWPA : Sch. IV;
CITES : Appendix III; CAMP : LRlc (Nationally), DD (Globally).

Ruddy Mongoose, *Herpestes smithii*



Photo Courtesy : Yogesh Dubey,
WII, Dehra Dun

Stripe-necked Mongoose, *Herpestes vitticollis*

Largest of all Asiatic mongooses; head and body length 40-55 cm; fur grizzled grey, tipped with chestnut red; a black neck-stripe running from ear to shoulder; inhabits moist forests and swampy areas; also found around human habitation, frequents swamps and flooded rice fields; both diurnal and nocturnal; feeds primarily on fishes, frogs, crabs, *etc.*; also known to prey on mouse deer, bandicoots and birds.



Stripe-necked Mongoose, *Herpestes vitticollis*

Photo Courtesy : WII Dehra Dun, BSES Mumbai

Distribution : India : Only in Western Ghats. *Elsewhere* : Sri Lanka.

Conservation status : IWPA : Sch. IV; CAMP : LRnt (Nationally).

Brown Mongoose, *Herpestes brachyurus*

Similar to the Grey Mongoose in head and body length, but blackish brown in colour; its paws also almost black; head and body length 38-50 cm, tail about two-third of the total body length, considerably bushy and tapering to a conical point; inhabits moist forests; both diurnal and nocturnal; feeds on rats, mice, birds, insects and other small animals.

Distribution : India : Western Ghats (in Karnataka, Kerala and Tamil Nadu). *Elsewhere* : Indonesia, Malaysia, Philippines, Singapore, Sri Lanka and Vietnam.

Conservation status : IUCN : DD; IWPA ; Sch. IV; CITES : Appendix III; CAMP : VU.



Photo Courtesy : Divya Mudappa, WII, Dehra Dun

Brown Mongoose, *Herpestes brachyurus*

Small Indian Mongoose, *Herpestes javanicus*

Smaller mongoose as its popular name implies, 35-50 cm in total length, tail shorter than body, fur soft and silky; northern forms darker brown speckled with gold and desert

Photo Courtesy : Peter Jackson, WII, Dehra Dun



Small Indian Mongoose, *Herpestes javanicus*

forms pale; inhabits bushes, hedges and cultivated fields in holes burrowed by itself; both diurnal and nocturnal; feeds on rats, mice, snakes, centipedes, scorpions and insects.

Distribution : India : Extending from Gujarat in the west, Jammu & Kashmir in north, Andhra Pradesh in south and north-eastern state in the east. *Elsewhere* : Afghanistan, Bangladesh, Bhutan, Cambodia,

China, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Thailand and Vietnam, introduced to several countries.

Conservation status : IWPA : Sch. IV; CAMP : LRIc (Nationally), DD (Globally).

Crab-eating Mongoose, *Herpestes urva*

Powerfully build managoose with head and body length 45-50 cm; fur dusky iron-grey and under fur dark brown at base and pale brownish-yellow at tips; a distinctive white stripe running from the angle of the mouth along each side of neck to shoulders; both diurnal and nocturnal; considerably aquatic in habit and an efficient swimmer; catches fishes, frogs and crabs from water; its popular name coined from its crab-eating habits.

Distribution : India : North-eastern states and West Bengal. *Elsewhere* : China, Laos, Malaysia, Myanmar and Nepal, Taiwan, Thailand and Vietnam.

Conservation status : IWPA : Sch. IV; CITES : Appendix III; CAMP : VU (Nationally), DD (Globally).



Crab-eating Mongoose, *Herpestes urva*

Marsh Mongoose, *Herpestes palustris*

A small sized mangoose, head and body length 28.5-36 cm; tail about two-third of this length; coat rough, coarsely grizzled; muzzle black; colour dimorphic having dark and light forms; endemic to India; inhabits marshy areas infested with reeds; both diurnal and nocturnal; feeds on rats, mice, birds, centipeds, insects and other small animals.

Distribution : India : West Bengal.

Conservation status : IUCN : EN; IWPA : Sch. IV; CAMP : EN

ENDEMIC



Family MUSTELIDAE

OTTERS, BADGERS, MARTENS AND WEASELS

Mustelids possess cylindrical bodies, short limbs and enlarged anal sac. They are considerably diverse in morphological and adaptive features. Some of them are aquatic and semi-aquatic while others are terrestrial and partly arboreal. Indian mustelids belong to 16 species comprising 4 subfamilies, *viz.*, Lutrinae, Melinae, Mellivorinae and Mustelinae.

Subfamily LUTRINAE

OTTERS

Genus	3
Species	3

Otters are expert swimmers and divers among mammals. Their stream-lined and almost cylindrical body, webbed feet, thick muscular tail, broad flattened head, a bristling array of rigid whiskers and water-proof coat are well suited to cope up with their aquatic habits. Otters are also quite at ease on ground. They primarily feed on fishes, sometimes crabs, other aquatic crustaceans and frogs. Sometimes they haunt birds and small mammals on land. The following 3 species of otters occur in India.

Common Otter, *Lutra lutra*

Dusky brown rough coated otter, head and body length 60-80 cm; dorsal fur grizzled; hairs of muzzle terminate above nose in zigzag line; occurs in rivers, streams and hill creeks; both nocturnal and diurnal; feeds on fishes and aquatic crustaceans.

Distribution : *India :* Throughout the Himalaya, North-eastern states, also in southern India in Andhra Pradesh, Tamil Nadu, Pondichery, Kerala and Maharastra. *Elsewhere :* Widely distributed in Eurasia extending from Europe through northern Africa to Asia upto Korea, Taiwan and Philippines.

Conservation status :
IUCN : VU; IWPA : Sch. I, Part II; CITES : Appendix I; CAMP : NE (Nationally), DD (Globally).



Common Otter, *Lutra lutra*

Smooth-coated Otter, *Lutrogale perspicillata*

Blackish to rufous chocolate brown in colour, head and body length 65-80 cm; coat smooth as its popular name implies; dorsal fur not grizzled; hairs of muzzle terminate in a straight line above the naked part of the nose; occurs in the plains; found in lakes and streams; both nocturnal and diurnal; diet same as that of the Common Otter.

Distribution : *India* : Almost throughout the country. *Elsewhere* : Afghanistan, Bangladesh, China, Indonesia, Iraq, Malaysia, Nepal, Pakistan, Thailand and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. II, Part II, CITES : Appendix II; CAMP : NE.



Smooth-coated Otter, *Lutrogale perspicillata*

Small-clawed Otter, *Ambolynx cinereus*

Dark brown above and paler-below; smaller than the Common and Smooth-coated Otters; head and body length 45-55 cm; possesses rudimentary claws as its popular name implies; both nocturnal and diurnal; diet same as that of other otters; found in rivers, streams and hill creeks.



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

Small-clawed Otter, *Ambolynx cinereus*

Distribution : *India* : Himachal Pradesh, Uttar Pradesh, West Bengal, Bihar, Sikkim, North-eastern states, Karnataka and Kerala. *Elsewhere* : Bangladesh, Cambodia, China, Indonesia, Laos, Myanmar, Philippines, Taiwan and Vietnam.

Conservation status : IUCN : LRnt; RBD : VU; CITES : Appendix II; CAMP : NE (Nationally), DD (Globally).

Subfamily MELINAE

HOG BADGER AND FERRET BADGER

Genus 2

Species 3

Among mustelids badgers can be conveniently recognised by its long projecting snout and broad feet with large non-retractile claws. These structures are fitted for digging and probe in the soil. True badgers do not occur in India. Instead, one species of Hog Badger and two species of Ferret Badgers are found in this country.

Hog Badger, *Arctonyx collaris*

Badger-like squat body, stumpy legs and powerful digging claws but its long and truncated snout with terminal disc and nostrils pig-like; head and body length 55-70 cm; eyes short and round, tail about one-fourth the length of head and body; dorsal colour a mixture of black, white and buff and, the underside and limbs dusky; pale throat and dark stripe on cheek differentiates

Hog Badger, *Arctonyx collaris*

it from the true badger; frequents stony grounds or small hills in tropical forests and takes shelter in rocky crevices or in hole dug by itself; omnivorous, seclusive and nocturnal.

Distribution : India : Sikkim, West Bengal and North-eastern states. Elsewhere : China, Indonesia, Malaysia, Myanmar, Thailand and Tibet.

Conservation status : IPWA : Sch. I, Part I; RDB : IK; CAMP : DD (Nationally & Globally).

Ferret Badgers

Ferret-badgers possess long projecting snouts and long non-retractile digging claws like those of a badger. But their longer limbs and tails, longer ears and a fine array of whiskers are weasel-like. Following are the Ferret Badgers distributed in India.

Chinese Ferret Badger, *Melogale moschata*Chinese Ferret Badger, *Melogale moschata*

General appearance as that of a ferret badger mentioned earlier; head and body length 40-45 cm; colour deep purplish grey, appearing silver grey against light; facial markings, cheeks and underparts yellowish or buffy white; posseses a whitish dorsal streak from the crown of the head down the middle of the back up to shoulder;

molar teeth small and narrow crowned giving its another popular name, the Small-toothed Ferret Badger; inhabits tropical and sub-tropical forests, also in grassland; nocturnal in habit and omnivorous, feeding on fruits, birds and small mammals.

Distribution : India : North-east India. *Elsewhere* : Myanmar to Taiwan, China, Laos and Vietnam.

Conservation status : IOWA : Sch. I, Part II; CAMP : EN (Nationally), DD (Globally).

Burmese Ferret Badger, *Melogale personata*

Resembles the Chinese Ferret Badger closely in body size, coloration and general appearance, differs only in dentition and pattern of facial markings; its molar teeth massive and wide crowned giving its another popular name, the Large-toothed Ferret Badger; its dorsal streak runs from the crown of the head up to its tail; its habit, habitats and food identical to those of the Chinese Ferret Badger.



Burmese Ferret Badger, *Melogale personata*

Distribution : India : North-east India and northern West Bengal. *Elsewhere* : Cambodia, Malaysia, Myanmar, Laos, Nepal, Thailand and Vietnam.

Conservation status : IOWA : Sch. II, Part I; CAMP : VU (Nationally), DD (Globally).

Subfamily MELLIVORINAE

HONEY BADGER, RATEL

Honey Badger or Ratel, *Mellivora capensis*



Honey Badger or Ratel, *Mellivora capensis*



Genus 1
Species 1

The only species of the genus *Mellivora*; its body heavily built, head and body length 60-77 cm, legs and tail relatively short, ears short and snout blunt; feet broad with strong claws; its upper parts from the top of the head to the base of the tail varying from grey to pale yellow or whitish, underparts from face to tail dark brown or black; its colour pattern makes it distinctive; inhabits deserts and dry deciduous forests, prefers hilly broken country and bank of streams; nocturnal in habit; omnivorous but



principally a flesh-eater; resembles a bear in gait and movement, also in the habit of digging holes on forest floor and sandy beds of rivers and in climbing trees.

Distribution : India : Almost throughout the country except North-east India, Jammu & Kashmir and Western Ghats. *Elsewhere :* Afghanistan, Arabia, Ethiopia, Iraq, Iran, Morocco, Nepal, Pakistan, Palestine, CIS countries, South Africa and Turkmenia.

Conservation status : IWPA : Sch. I, Part I; RDB : IK; CAMP : LRnt (Nationally), DD (Globally).

Subfamily MUSTELINAE

MARTENS, WEASELS AND POLECAT

Genus	2
Species	9
Endemic species	1

Martens

Amongst mustelids martens are recognised by their longer snout, large upstanding ears, longer limbs and longer tail.

They are agile on trees but clumsy on ground. Three species of martens occur in India, of which one species, the Nilgiri Marten. *Martes gwatkinsi* is endemic to India.

Beech Marten, *Martes foina*



Photo Courtesy: Fritz Vollman, WWF / WII, Dehra Dun

Beech Marten, *Martes foina*

Also called the Stone Marten; body slender, head and body length 25-45 cm, limbs moderately long, tail about half the length of head and body, upper parts almost uniformly drab or slaty brown, throat white to pale yellow; usually inhabits above the tree line above 1500 m in the temperate and alpine zones of the Himalaya; lives in forests as well as on barren lands; diurnal in habit and omnivorous; haunts birds and squirrels on trees and mouse hares, voles and lizards on ground; also takes nuts, fruits and honey.

Distribution : India : Jammu & Kashmir, Himachal Pradesh and Uttaranchal. *Elsewhere :* Afghanistan, Altai Mountains, Asia Minor, Belgium, Bosnia, CIS countries, China, Crete, Denmark, France, Germany, Holland, Islands of Corfu, Italy, Iran, Manchuria, Mongolia, Pakistan, Palestine, Poland, Rhodesia, Spain, Switzerland, Syria and Tibet.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III, CAMP : DD (Nationally & Globally).

Yellow-throated Marten, *Martes flavigula*

Larger than the Beech Marten; head and body length 45-65 cm; tail about three-fourth of that length; upper side variegated with deep brown, black and yellow; yellow of the throat becomes prominent by dark bands running down the nape, giving its popular name; occurs in the foot hills of the Himalaya; diurnal in habit and omnivorous; diets similar to that of the Beech Marten.

Distribution : India : From Jammu & Kashmir to North-eastern India. *Elsewhere :* CIS countries, China, South-east Asian countries, Indonesia, Korea and Taiwan.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : LR1c (Nationally), DD (Globally).



Photo Courtesy : Sean A. Austin, Will, Dehra Dun

Yellow-throated Marten, *Martes flavigula*

Nilgiri Marten, *Martes gwatkinsi*

Largest of Indian martens; head and body length 50-65 cm; more or less similar to the Yellow-throated Marten in size and coloration; upper side dark brown from head to rump and fore-quarters almost reddish; endemic to this country; inhabits grassland, deciduous and evergreen forests, diurnal in habit and omnivorous; diets similar to other Indian martens.

Distribution : India : Confined to the Western Ghats.

Conservation status : IUCN : VU; IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : VU.



Photo Courtesy : M. D. Madhusudan, Will, Dehra Dun

Nilgiri Marten, *Martes gwatkinsi*

ENDEMIC

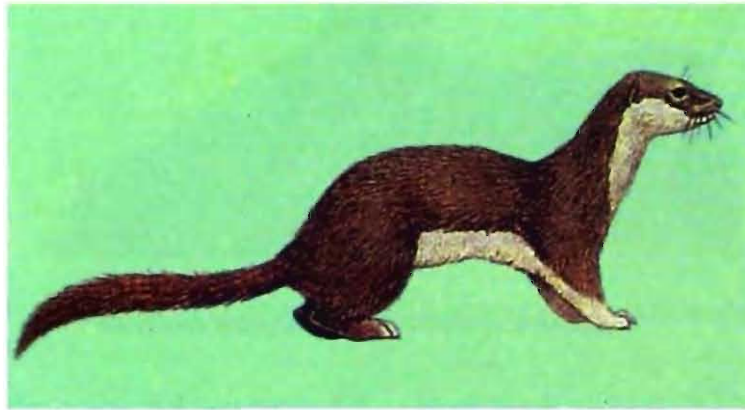


Weasels and Polecat

The distinctive characters of weasels are their stream-lined body, flattened head, small ears, short abrupt snout and, short legs and tail. Five species of weasels and the only polecat, the Tibetan Polecat, *Mustela putorius* occur in India. The polecat differs from weasels mainly in coloration.

Mountain Weasel, *Mustela altaica*

Possesses general characteristics of weasels; sandy yellow above, paler yellow below; head and body length 22-28 cm; paws white; occurs in upper Himalaya above 2000 m



Mountain Weasel, *Mustela altaica*

altitude; nocturnal and crepuscular in habit; preys on mice, voles, birds and lizards.

Distribution : India : Kashmir, Himachal Pradesh, Uttaranchal and Sikkim. *Elsewhere* : China, CIS countries, Korea and Mongolia.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : DD (Nationally & Globally).

Siberian Weasel, *Mustela sibirica*

Bright foxy red to dark chocolate in colour without any sharp contrast between upper and under parts; head and body length 25-30 cm; paws dark; occurs in the Himalaya; inhabits forests, open grass and scrub at altitude 1500-5000 m; takes shelter in rocks, tree hollows, burrows of other animals; nocturnal but hunts during day; also preys rats, mice, birds and reptiles.

Distribution : India : From Kashmir to North-eastern states within Indian limit. *Elsewhere* : Uran mountains, Siberia, Russia, Bhutan, China, Korea, Indonesia, Japan, Myanmar, Nepal, Thailand, Taiwan and Tibet.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : LRnt (Nationally), DD (Globally).



Siberian Weasel, *Mustela sibirica*



Yellow-bellied Weasel, *Mustela kathiah*

Upper parts dark chocolate brown, underparts sharply contrasting with deep yellow; head and body length 25-27 cm; paws dark like the Siberian Weasel; occurs in the Himalaya; inhabits temperate and evergreen forests; nocturnal in habit; diet same as that of the Siberian Weasel.

Distribution : *India* : From Kashmir to North-eastern India. *Elsewhere* : Cambodia, China, Laos, Myanmar, Nepal and Vietnam.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III; CAMP : DD (Nationally).



Yellow-bellied Weasel
Mustela kathiah

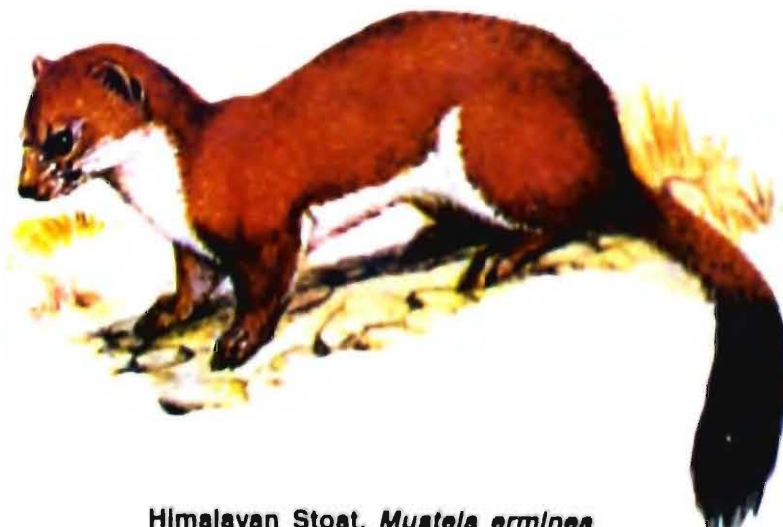
Photo Courtesy : BNHS, Mumbai /
WII, Dehra Den

Himalayan Stoat, *Mustela erminea*

Small weasel; head and body length 17-22 cm; body colour variable, in summer chestnut or reddish brown above and white below but in winter colour entirely white; tail tip black throughout the year; inhabits alpine and temperate forests above 3000 m; feeds on small rodents, birds, lizards, frogs and even insects.

Distribution : *India* : Jammu & Kashmir (near Ladakh). *Elsewhere* : Europe from Arctic, south to Pyrenees and Alps including British Isles, Belgium, Czechoslovakia, CIS countries, Denmark, France, Germany, Holland, Ireland, Norway, Poland, Switzerland, Sweden, Scandinavia and South America; also Afghanistan, Algeria, China, Japan, Mongolia and Pakistan.

Conservation status : IWPA : Sch. I, Part I; RDB : IK; CITES : Appendix III; CAMP : DD (Nationally & Globally).

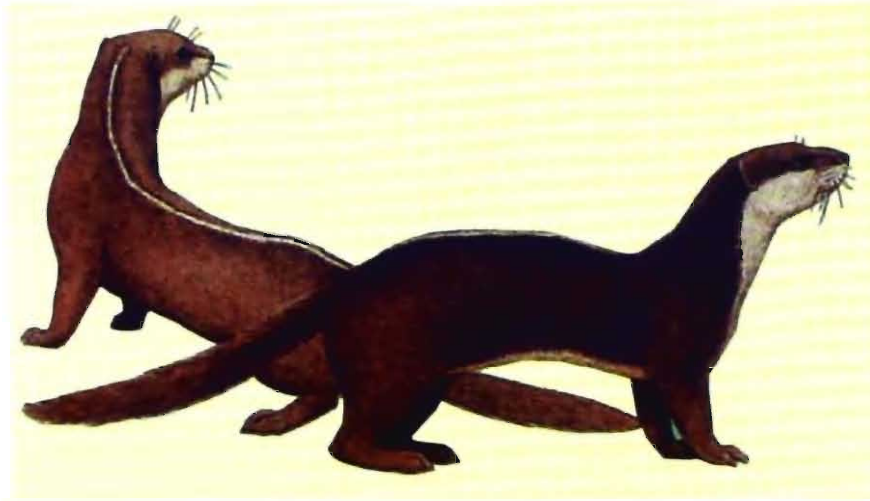


Himalayan Stoat, *Mustela erminea*

Photo Courtesy : BNHS, Mumbai /
WII, Dehra Den

Back-striped Weasel, *Mustela strigidorsa*

Dark brown in colour but upper lips, cheeks, chin and throat pale yellow; head and body length 25-32 cm; a narrow whitish stripe down the middle of the back and another



Back-striped Weasel, *Mustela strigidorsa*

stripe from chin to abdomen make it distinctive; occurs in the Himalaya between 1200-2100 m altitude; inhabits temperate forests; general habits and diet same as in other Indian Weasels.

Distribution : India : Sikkim and North-eastern India. *Elsewhere* : China, Laos, Myanmar, Nepal and Thailand.

Conservation status : IUCN : VU; CAMP : DD (Nationally).

Tibetan Polecat, *Mustela putorius*

Dark brown in colour, hairs dark-tipped, long and loose; under fur pale yellow; head and body length 35-45 cm; legs black, darker than the back, area between eye and ear



Photo Courtesy : Andy Purcell/ICCE, WII, Dehra Dun

Tibetan Polecat, *Mustela putorius*

silvery white, possesses a black mask across its eye and forehead; nocturnal in habit; preys on marmots, mouse hares and ground birds.

Distribution : India : inhabitants of temperate forests of the Tibetan plateau and enters Jammu & Kashmir within Indian limit. *Elsewhere* : Tibet.

Conservation status : IWPA : Sch. II, Part II; CITES : Appendix III, CAMP : DD.

Family URSIDAE

BEARS AND PANDA

Bears are instantly recognised by their big head, small eyes, rounded ears, heavy body carried on its massive thickset limbs and very short, almost invisible tail.

The Panda which is now placed under the same family with bears has a squat heavy body, round head, short limbs and plantigrade gait like bears. But its long tail, thickly covered mat of hairs on its pad and glandular sac surrounding its anus conveniently differentiate it from the bear. Four species of bears and one species of Panda occur in India.



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

Red Panda, *Ailurus fulgens*

Handsome animal having woolly coat of bright chestnut colour; head and body length 55-60 cm; possesses rounded head, large pointed ears, short muzzle and legs with hairy sole and retractile claws; its tail long and fluffy, ringed with light and dark chestnut bands; underside and legs black, face and lower feet white; a vertical red stripe present from eye to the gape; inhabits temperate forests at altitudes 1500-3500 m; arboreal and crepuscular in habit; feeds on vegetable matters like sprouts of bamboo, fruits, roots, *etc.*, and also insects.

Distribution : India : Arunachal Pradesh, Sikkim and Darjeeling district in West Bengal. *Elsewhere* : China, Myanmar and Nepal.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).

Red Panda, *Allurus fulgens*

Malayan Sun Bear, *Helarctos malayanus*

Chocolate brown or blackish in colour, small in size, coat short and coarse, short muzzle and well developed pale or dusky claws; head and body length 100-140 cm; a white, pale orange coloured V-shaped or U-shaped patch present on its chest; both diurnal and nocturnal; found in the hilly terrain; primarily frugivorous, also feeds on insects, animals and birds.

Distribution : *India* : North-eastern India, south of the Brahmaputra river. *Elsewhere* : China, Indonesia, Laos, Malaysia, Myanmar, Taiwan, Thailand and Vietnam.

Conservation status : IUCN : DD; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : DD (Nationally & Globally).



Malayan Sun Bear, *Helarctos malayanus*

Brown Bear, *Ursus arctos*

Heavier build, coloration usually dark brown without having any clear chest marking; known as the largest living carnivore, but Indian subspecies smaller, about 170 cm in total length; nocturnal in habit; usually inhabits the grassy slopes above tree line close to the snow and hibernates during winter or remain in torpid condition; lives on young sprouts of grass, wild fruits, insects, rats and sometimes large animals.

Distribution : *India* : Higher elevation of North-western Himalaya in Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Afghanistan, Albania, Asia Minor, Austria, Bulgaria, China, CIS countries, Central Asia, Czechoslovakia, Estonia, Finland, France, Germany, Italy, Iran, Japan, Korea, Manchuria, Mongolia, North America, Nepal, Pakistan, Palestine, Poland, Romania, Scandinavia, Siberia, Syria, Sweden, Switzerland and Tibet.

Conservation status : IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

Brown Bear, *Ursus arctos*

Asiatic Black Bear, *Ursus thibetanus*



Asiatic Black Bear, *Ursus thibetanus*

Glossy black with white, yellow or buff V-shaped chest mark on glossy black chest, for which it is called the Moon Bear; head and body length 140-170 cm; smoother coat, black claws and much short hairs differentiate it from the Sloth Bear; found in forested hills; excellent swimmer and expert climber; both diurnal and nocturnal; feeds on fruits, berries, honey, insects specially termites and beetle larvae and sometimes raids cultivation; most carnivorous among bears, may kill goats, sheep and larger cattle.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, northern West Bengal and North-eastern states. *Elsewhere* : Afghanistan, China, Formosa, Indo-China, Japan, Korea, Laos, Manchuria, Myanmar, Nepal, Pakistan, Siberia, Taiwan, Thailand and Vietnam.

Conservation status : IUCN : VU; CITES : Appendix I; CAMP : LRlc (Nationally), DD (Globally).

Sloth Bear, *Melursus ursinus*

Body covered with long, coarse, shaggy black hair, having elongated grey snout; white or cream coloured V-shaped mark over its chest and ivory claw; head and body-length 140-160 cm; both diurnal and nocturnal; inhabits rocky forested hills close to water; omnivorous, feeds on fruits, flowers, tubers, honey, insects specially termites.

Distribution : India : Throughout India from the Himalayan foot hills to southernmost region, except arid region of Rajasthan and Gujarat. *Elsewhere* : Sri Lanka.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).



Sloth Bear, *Melursus ursinus*

Order CETACEA

The cetaceans are aquatic mammals and include whales, dolphins and porpoises. Excepting one species, all of them are marine and inhabit oceans and seas, estuaries and tidal creeks. The only freshwater inhabiting cetacea in India is the Ganges River Dolphin which occurs in the river systems of the Ganga and the Brahmaputra. Cetaceans are having fusiform body, a pair of pectoral flippers and a horizontally compressed tail fluke with or without a notch in the middle. They are lung breathers and their nostrils are placed much above the extremity of snout. These mammals come to water surface for breathing.

The popular name 'whale' is given to the large cetaceans which on maturity attain the body length of five metre or more. The small cetaceans having slender body and beak-like snout are named as dolphins and the cetaceans of similar body size with stocky body and blunt snout are called porpoises. However, such demarcation in naming the cetaceans is not always followed.



The cetaceans may be toothed or tooth-less. The former is included in the suborder Odontoceti, members of which possess teeth in one or both sides of the jaws. The toothless whales belong to the suborder Mysticeti which have baleen plates instead of teeth. These plates aid in sieving the sea planktons during their feeding. Mention is to be made here that the largest living animal species of the world, the Blue Whale is a baleen whale. Interestingly, this species as well as the largest toothed whale, the Killer Whale are found in Indian waters. As many as 28 species of cetaceans have been reported so far from Indian waters.

Suborder MYSTICETI

BALEEN WHALES

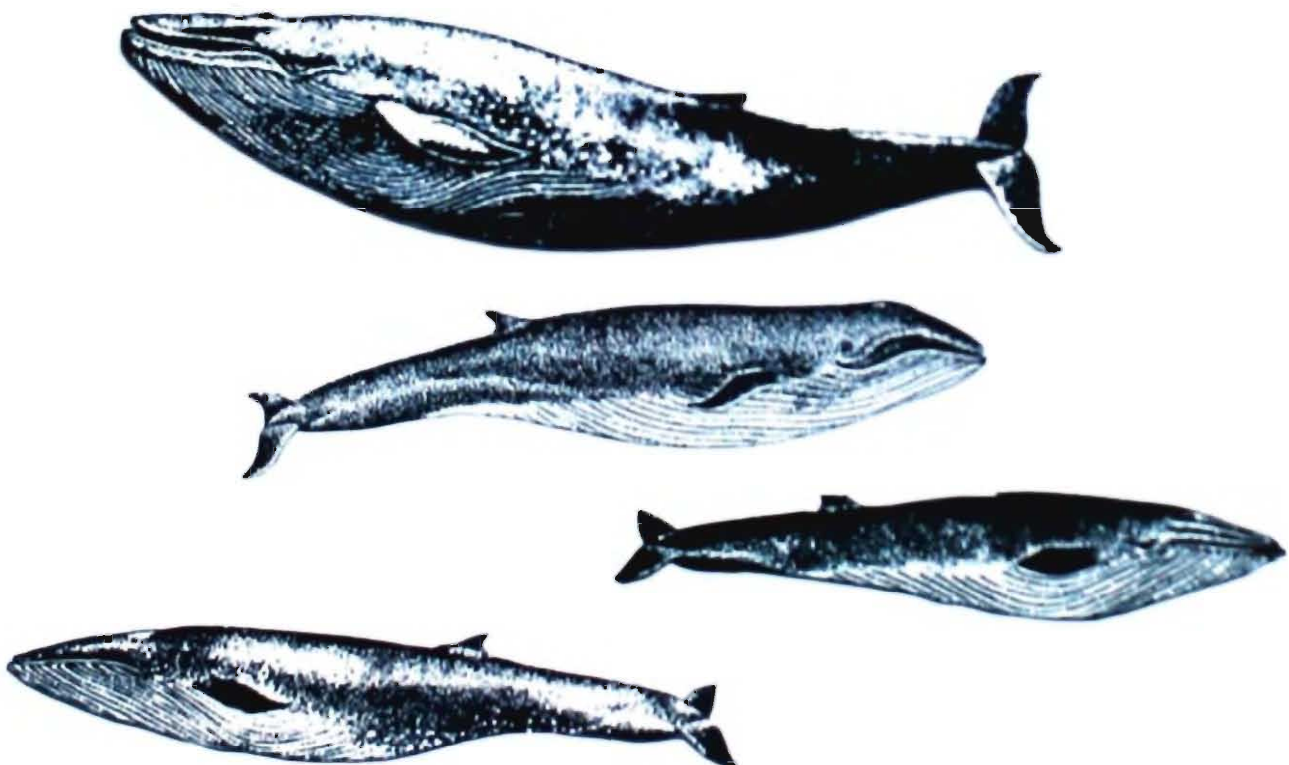
The Mysticetes are tooth-less whales whose teeth are replaced by numerous keratinous baleen plates which project from upper jaw and act as filter. There are two rows of plates, one on each side of the mouth. These plates hang at right angles to the longitudinal axis of the head. In Indian water 7 species of Baleen Whales belonging to two families have been reported so far.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Balaenopteridae	2	6	-
2.	Balaenidae	1	1	-
	Total	3	7	-

Family BALAENOPTERIDAE

RORQUALS

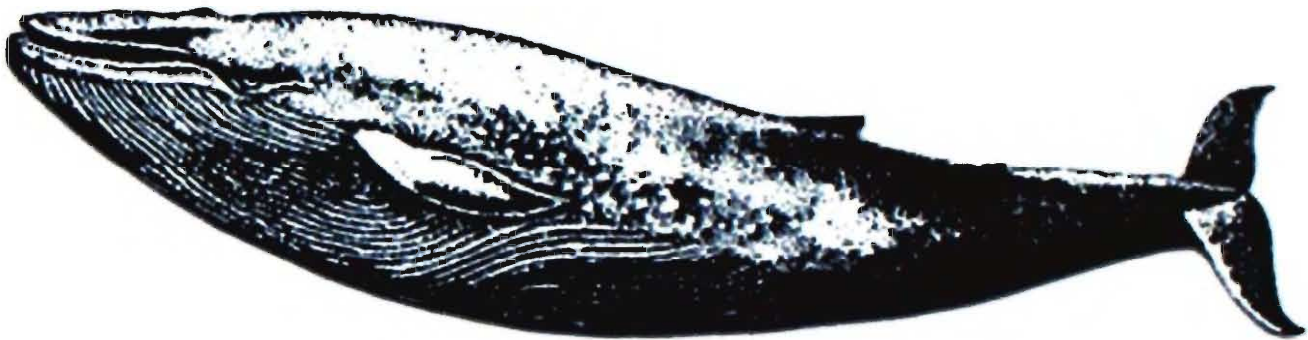
The members of this family are characterised by the presence of throat and chest furrows, small head, tapering pectoral fin and, shorter and less flexible baleen. These whales are large in size and migrate seasonally between cold and warm water. Six species of Rorquals have been reported from Indian waters.





Blue Whale, *Balaenoptera musculus*

The largest living animal species of the world, body length 20-27 m, maximum body length reported up to 34 m and weight 152 tonnes; body bluish grey above, mottled with white, head U-shaped from above, having a ridge on it; baleen plate characteristically jet black, 60-100 parallel pleats present on throat and chest; primarily feeds on krill, amphipods and copepods, sieved through its baleen plates.



Blue Whale, *Balaenoptera musculus*

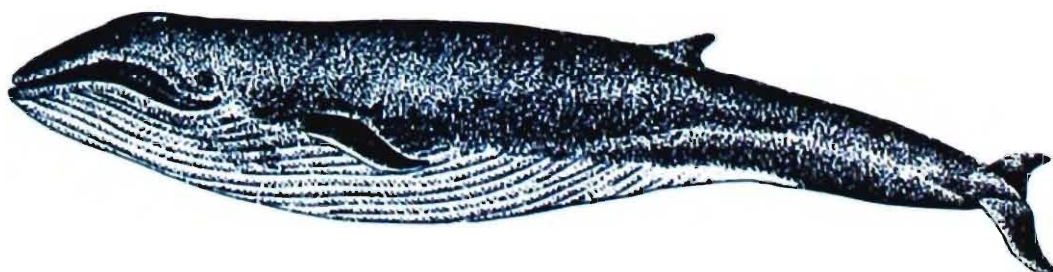
A separate population of the Blue Whale is found in northern Indian ocean (including Indian waters) throughout the year and recognised as a separate subspecies, *Balaenoptera musculus brevicauda*, popularly called the Pygmy Blue Whale.

Distribution : *India* : Off east and west coasts and washed ashore in Karnataka, Maharashtra, Gujarat, Tamil Nadu, Kerala and Andhra Pradesh. *Elsewhere* : Worldwide; occurs in all the seas, prefers cold water and open seas and migrates towards tropics in winter.

Conservation status : IUCN : EN; IWPA : Sch. II, Part I; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).

Fin Whale, *Balaenoptera physalus*

The second largest Whale after the Blue Whale; average body length about 20 m and maximum body length recorded 26 m; dark grey to blackish above with no mottling; underneath white; right baleen plates white, left baleen plates grey, fringes coarse and dull white; food similar to that of the Blue Whale.



Fin Whale, *Balaenoptera physalus*

Distribution : *India* : Indian ocean off east and west coasts of India; washed ashore in Gujarat, Maharashtra, Goa, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh and Orissa. **Elsewhere** : Worldwide; migrates from temperate waters to tropics in winter.

Conservation status : IUCN : EN; IWPA : Sch. II, Part I; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Sei Whale, *Balaenoptera borealis*

Medium sized Whale, body length 13-18 m, bluish grey above with ovoid white spots and white below, head V-shaped having a single ridge on it; baleen plates grey, fringes silky, curly and white; usually occurs far from shore; food similar to that of other Rorquals.



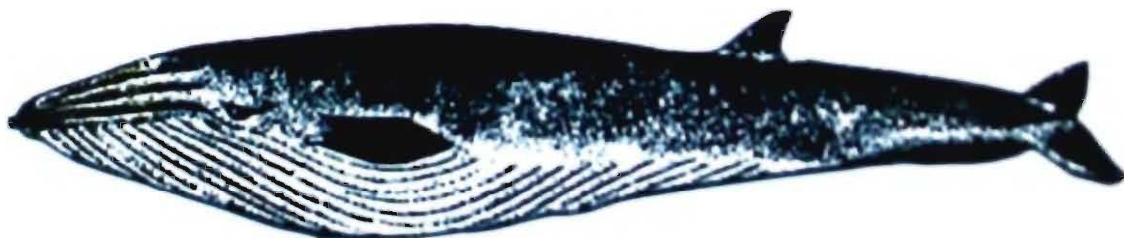
Sei Whale, *Balaenoptera borealis*

Distribution : *India* : Reported off east coast and washed ashore in west coast of India in Kerala and Gujarat. **Elsewhere** : Worldwide, found in temperate waters, migrates to subtropical waters in winter.

Conservation status : IUCN : EN; IWPA : Sch. II, Part I, CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Bryde's Whale, *Balaenoptera edeni*

Medium sized Whale, body length 12-16 m, dark grey above and whitish below; head V-shaped having three prominent ridges; baleen plates slaty grey, fringes coarse, stiff and thick; occurs in tropical and warm temperate waters, food similar to that of other Rorquals.



Bryde's Whale, *Balaenoptera edeni*

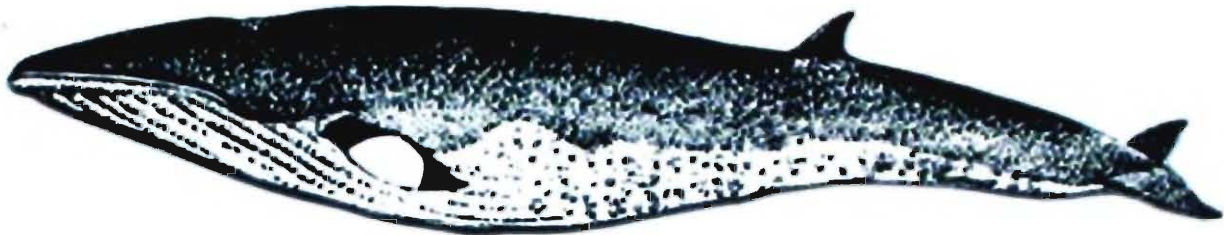
Distribution : *India* : Recorded off both east and west coasts of India from Tamil Nadu, Kerala and Maharashtra. **Elsewhere** : Between 40°N and 40°S latitudes in tropical and warm temperate waters, both off and close to the shore.

Conservation status : IWPA : Sch. II, Part I; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).



Minke Whale, *Balaenoptera acutorostrata*

Smallest of the Rorquals, body length 6.5-10.5 m, dark grey to black above, white below and pale grey areas on sides; pectoral flippers oblong, having a broad white band on it; baleen plates whitish to dark grey, fringes yellowish white anteriorly or dark grey; food similar to that of other Rorquals.



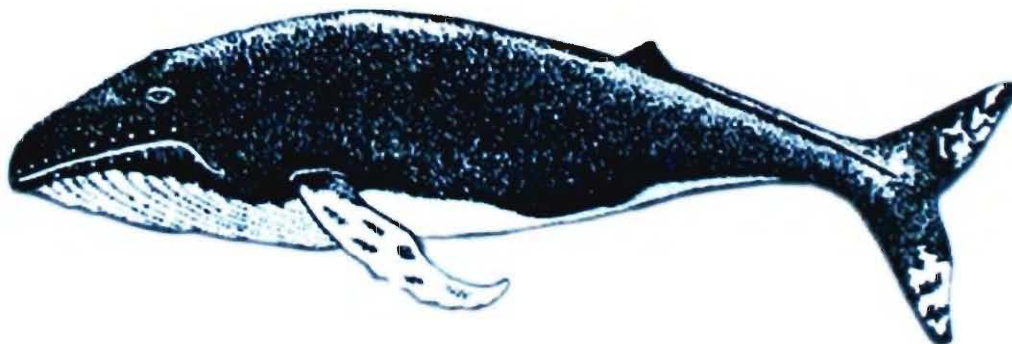
Minke Whale, *Balaenoptera acutorostrata*

Distribution : *India* : Reported from the Bay of Bengal in Orissa, Andhra Pradesh and Tamil Nadu. *Elsewhere* : Worldwide; occurs in temperate and polar waters, migrating towards equator and sometimes towards tropics in winter.

Conservation status : IUCN : LRnt; IWPA : Sch. II, Part I; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Hump-back Whale, *Megaptera novaeangliae*

Medium sized Whale, body length 11.5-16 m, black above, white on throat, breast and pectoral flippers; head short and broad; irregular knobs and protuberances found on head and flippers, pectoral flippers very long, largest of any cetacean, about one-third the length of head and body, expanse of tail fluke also about the one-third of head and body length; baleen short, broad and blackish.



Hump-back Whale, *Megaptera novaeangliae*

Distribution : *India* : Reported from Gulf of Mannar and off west coast of India. *Elsewhere* : Occurs in all oceans and adjoining seas of the world.

Conservation status : IUCN : VU; Sch. II, Part I, CITES.: Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Family BALAENIDAE

RIGHT WHALES

Members of this family are called the Right Whales referring to the consideration of earlier days that they are the "right" or best kind of whales to hunt because they are slower in movement and often come close to land. Three species of the Right Whales are found in the world. Only one species of Right Whales is reported from Indian waters.

Greenland Right Whale, *Balaena mysticetus*

Medium sized, head and body length 15-18 m, black in colour, anterior part of lower jaw cream coloured, belly occasionally with white patches, junction of body and tail sometimes grey; baleen plates considerably large in vertical length and black in colour; feeds on zooplanktons primarily comprising of euphausiids, copepods and free-swimming molluscs (pteropods).

Distribution : India : Reported off Gujarat coast in Indian waters. *Elsewhere* : Northern hemisphere; an arctic species, seldom occurs south of about 45°N; stray records in Japan, Gulf of St. Lawrence and Massachusetts.

Conservation status : CITES : Appendix I.

Suborder ODONTOCETI

TOOTHED WHALES

The toothed Whales reported so far from Indian waters belong to 5 families and 21 species.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Platanistidae	1	1	—
2.	Delphinidae	12	14	—
3.	Phocoenidae	1	1	—
4.	Physeteridae	2	3	—
5.	Ziphiidae	2	2	—
	Total	18	21	—

The Whales of the families Physeteridae and Ziphiidae have functional teeth only on the lower jaw while those of the remaining families, namely, Platanistidae, Delphinidae and Phocoenidae possess functional teeth on both the jaws.

Family PLATANISTIDAE

RIVER DOLPHINS

This family includes six species throughout the globe. Out of these, only one species occurs in the India.



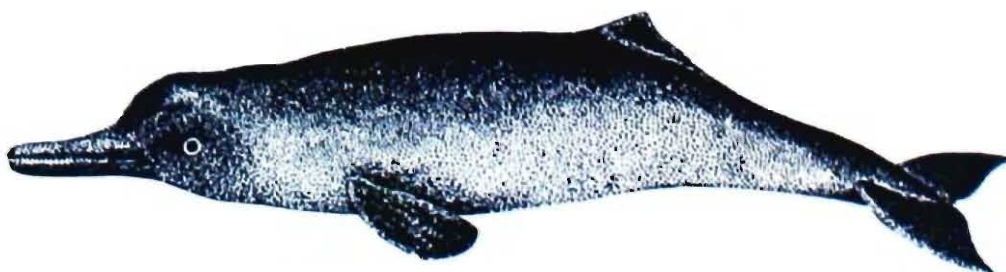
Photo Courtesy : Gopal Sharma, Z.S.I

Ganges River Dolphin, *Platanista gangetica*

Small cetaceans, head and body length 1.7-2.5 m, fusiform body, slaty to shooty black in colour, older individuals possess lighter patches on sides; forehead rising steeply and prolonged into a long and compressed beak, each side of the beak adorned with 27-32 teeth; dorsal fin low and ridge-like; only true freshwater cetacea in India.

Distribution : *India* : River systems of the Ganga and the Brahmaputra. *Elsewhere* : In Ganga, Brahmaputra and Meghana river systems of Bangladesh, Nepal and Bhutan.

Conservation status : IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).



Ganges River Dolphin, *Platanista gangetica*

Family DELPHINIDAE

DOLPHINS AND WHALES

As many as 14 species under this family have been reported from Indian waters. Except the genus *Grampus*, all the other delphinids are having functional teeth in both the jaws.

Common Dolphin, *Delphinus delphis*

A colourful cetacea, slender bodied, total length 1.7-2.5 m, body dark grey to black above, belly whitish, sides with bands and stripes of grey, yellow or white; a narrow well defined beak demarcated from the forehead by a deep V-shaped groove; dorsal fin tall with a pointed tip; most conspicuous marine mammal in Indian waters; a powerful swimmer, probably the swiftest of all cetaceans; subsists mainly on fishes and cephalopods.

Distribution : *India* : Off-shore and open water of the east and west coasts and around Andaman & Nicobar and Lakshadweep islands. *Elsewhere* : Worldwide; from warm temperate to tropical waters in coastal water and offshore.

Conservation status : IWPA : Sch. II, Part I; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).



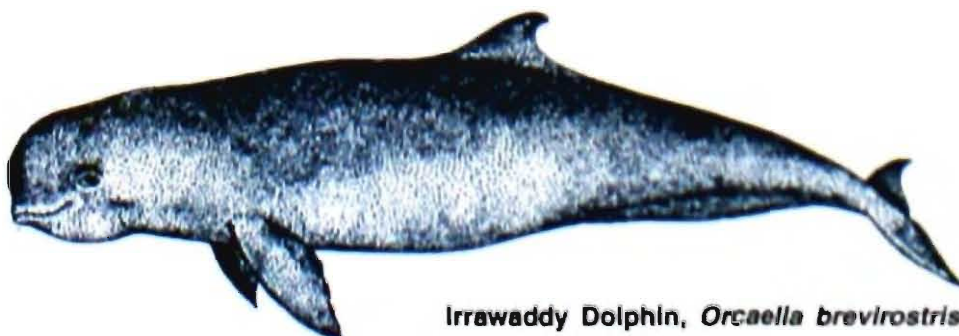
Common Dolphin, *Delphinus delphis*

Irrawaddy Dolphin, *Orcaella brevirostris*

Body bluish grey above, paler below without any distinct pattern; total length 2-2.75 m; possesses a bulging forehead, downwardly pointed mouth and everted lips; dorsal fin short, blunt at the tip; occurs in coastal water and ocean, prefers inshore water and estuaries; primarily feeds on fishes, crustaceans and cephalopods.

Distribution : *India* : East coast, estuaries of Krishna and Ganga and in the Chilka lake (Orissa). *Elsewhere* : From Bay of Bengal through Myanmar, Thailand and Indonesia to Northern Australia; also in large rivers, *viz.* Irrawaddy and Mekong.

Conservation status : IUCN : DD; IWPA : Sch. I, Part I; RDB : IK; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).

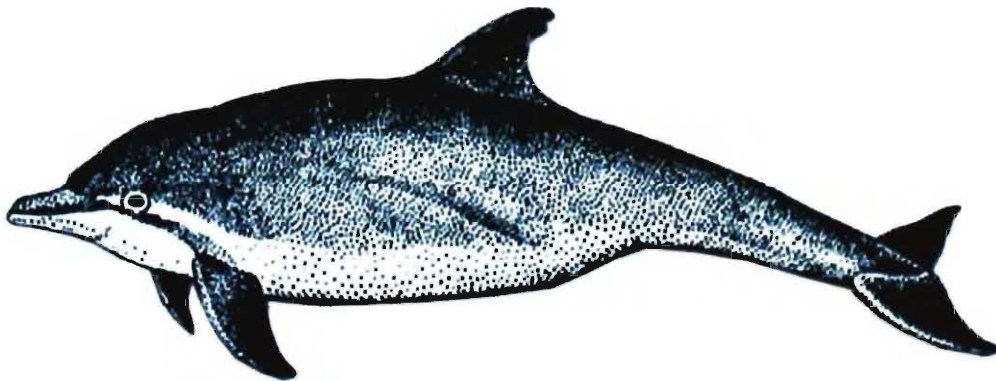


Irrawaddy Dolphin, *Orcaella brevirostris*



Bottle-nosed Dolphin, *Tursiops truncatus*

A stout dolphin, total body length 2.3-3.8 m; upper part dark grey or slaty blue, pinkish ash-grey below, fins and flukes darker; a short well defined beak separated from the forehead by a groove, resembling the top of an old-fashioned gin bottle, giving its popular name.



Bottle-nosed Dolphin, *Tursiops truncatus*

Distribution : *India* : Bay of Bengal and Arabian sea off Andhra Pradesh, Tamil Nadu and Kerala. *Elsewhere* : Worldwide; occurs primarily in temperate and tropical waters, mostly in coastal waters, often in bays and lagoons.

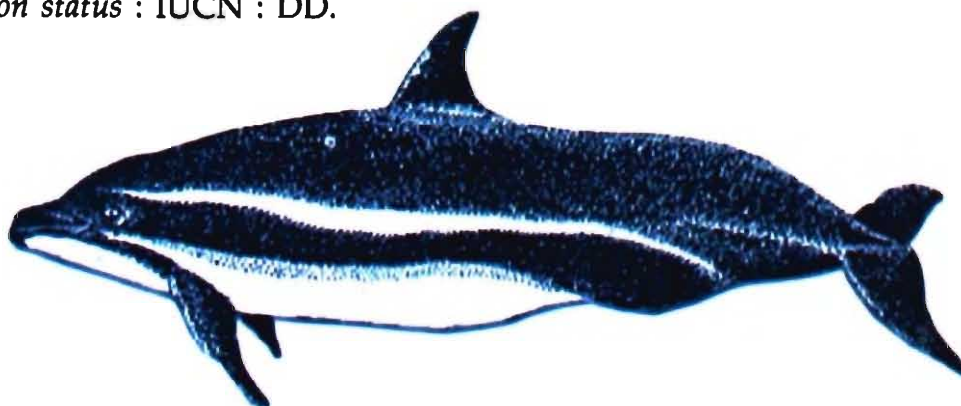
Conservation status : IUCN : DD; IWPA : Sch. II, Part I; CITES : Appendix II, CAMP : LRnt (Nationally), DD (Globally).

Fraser's Dolphin, *Lagenodelphis hosei*

A dark grey dolphin with white underparts, total length 2.3-2.6 m; a broad dark grey stripe running between eyes and anus and a white stripe lying on it; possesses a short and indistinct beak and a large, triangular dorsal fin with pointed tip; also called the Short-snouted Whitebelly Dolphin, based on its external feature.

Distribution : *India* : Recorded from the Bay of Bengal. *Elsewhere* : Occurs in tropical and warm waters around the world including Sri Lanka, Borneo, Taiwan and the Philippines.

Conservation status : IUCN : DD.



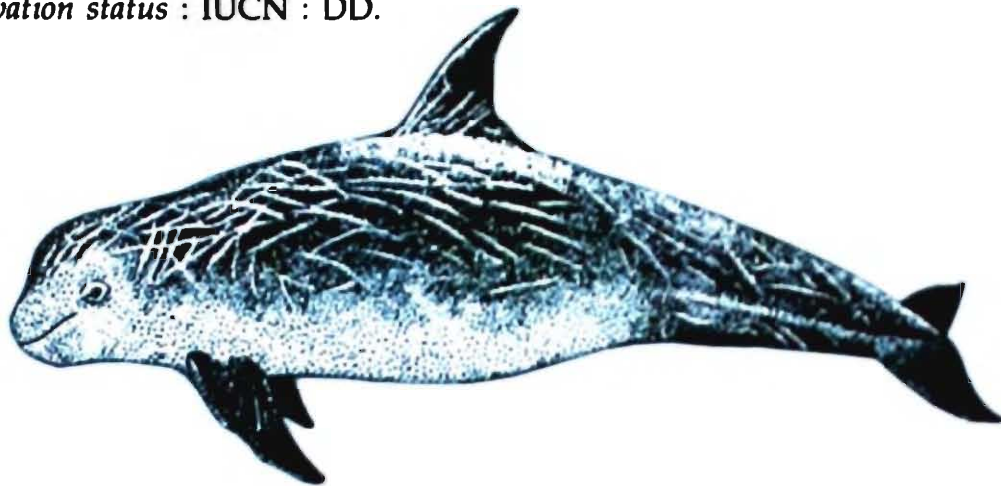
Fraser's Dolphin, *Lagenodelphis hosei*

Grey or Risso's Dolphin, *Grampus griseus*

Light to dark grey above with paler underparts, lips, chin and belly white; body traversed with irregular grey to almost white streaks, probably healed scars; total length 2.6-3.8 m; beak lacking; forehead rising almost vertically from the tip of the upper jaw; no teeth in upper jaw in adults.

Distribution : *India* : Reported off Tamil Nadu and Kerala coasts. *Elsewhere* : Worldwide; in temperate and tropical oceans and adjoining seas.

Conservation status : IUCN : DD.



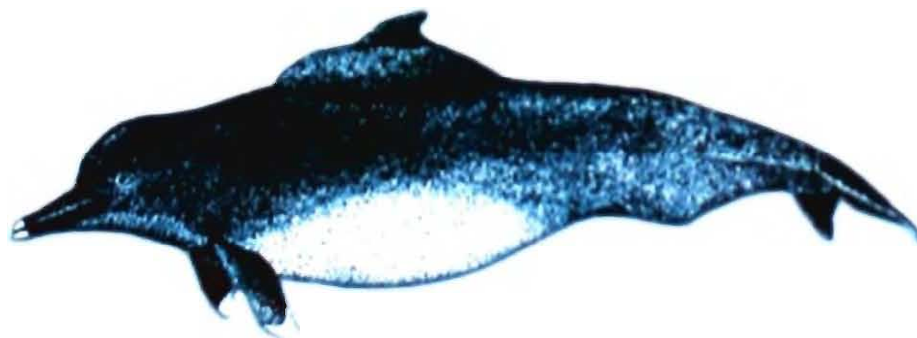
Grey or Risso's Dolphin, *Grampus griseus*

Indo-Pacific Hump-backed Dolphin, *Sousa chinensis*

A long low hump on back, topped with short dorsal fin usually found in adults, giving its popular name; some forms lack the hump and possess long dorsal fin; total length 2.4-3.2 m; a long beak and a bulging forehead differentiate it from the Common Dolphin; body colour variable, brown-grey above and paler below; some population whitish.

Distribution : *India* : Recorded off both the east and west coasts of India and Andaman islands. *Elsewhere* : From South Africa through Indian subcontinent and Indonesia to southern China and Australia (Queensland); occurs in coastal and inshore waters and frequents mangroves.

Conservation status : IUCN : DD; CITES : Appendix I.

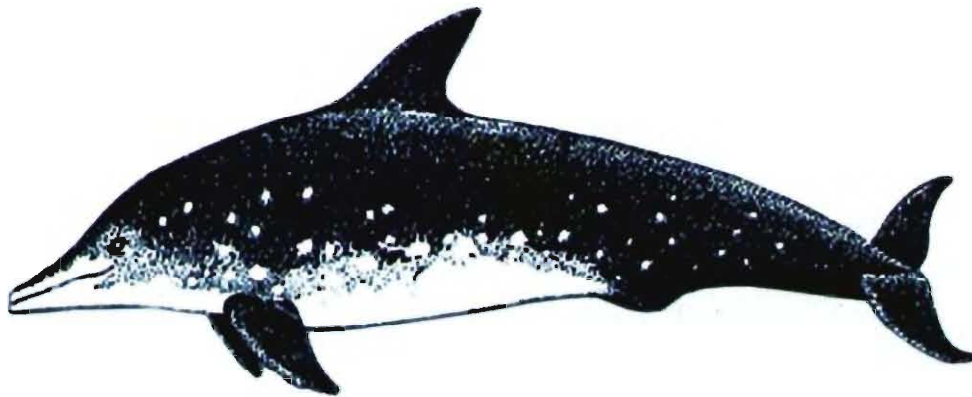


Indo-Pacific Hump-backed Dolphin, *Sousa chinensis*



Rough-toothed Dolphin, *Steno bredanensis*

Body dark grey to blackish above, lips and underparts white, pale or yellowish blotches on sides; total length 2.2-2.6 m; forehead slopes evenly into a long slender beak, not sharply demarcated from head; surface of the teeth roughened and furrowed by vertical ridges and wrinkles.



Rough-toothed Dolphin, *Steno bredanensis*

Distribution : India : Found around Nicobar islands. *Elsewhere :* Worldwide, found mainly in tropical and subtropical waters.

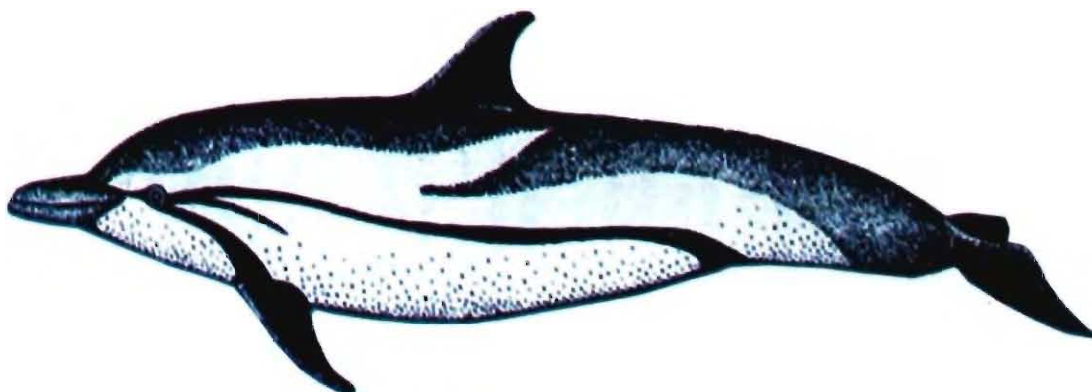
Conservation status : IUCN : DD; CITES : Appendix II.

Striped Dolphin, *Stenella coeruleoalba*

Medium sized dolphin, total length 1.8-2.6 m; body dark grey to bluish grey, underparts white, sides light grey; one black stripe runs from each eye to the pectoral fin and another black stripe from each eye to the anus; possesses a distinct short thick beak.

Distribution : India : Reported off east and west coasts. *Elsewhere :* Found off shore in most tropical and warm temperate waters; known from South Africa, eastern tropical Pacific, Western North Pacific, Mediterranean and Red sea.

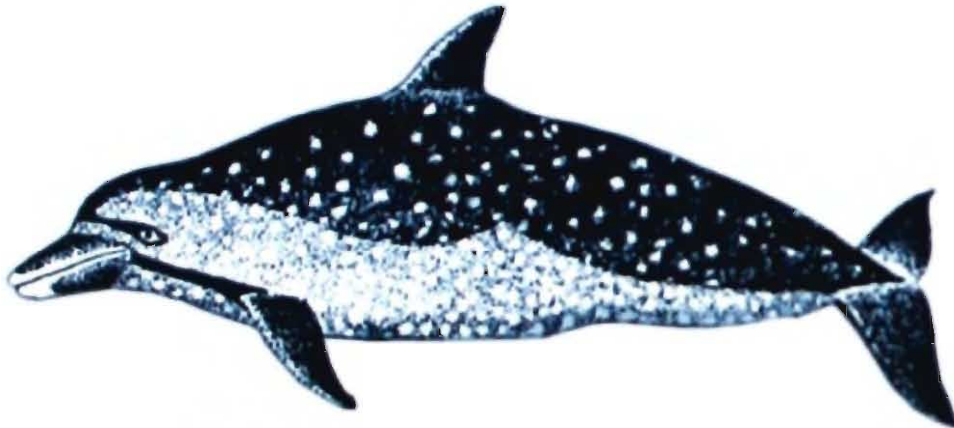
Conservation status : IUCN : LRcd; CITES : Appendix II.



Striped Dolphin, *Stenella coeruleoalba*

Pantropical Spotted Dolphin, *Stenella attenuata*

Medium sized dolphin, total length 1.8-2.5 m, dark grey above, greyish in the middle and whitish underparts, body extensively spotted, pale spots on dark background above and sprinkling of dark spots on whitish background below, possesses a short and thick beak; a black stripe runs from beak to the pectoral fin; a portion of rostrum and lower jaw white.



Pantropical Spotted Dolphin, *Stenella attenuata*

Distribution : *India* : Reported from the Bay of Bengal off West Bengal (Sundarbans) and Tamil Nadu. *Elsewhere* : Worldwide : found in tropical and subtropical waters both coastal and offshore.

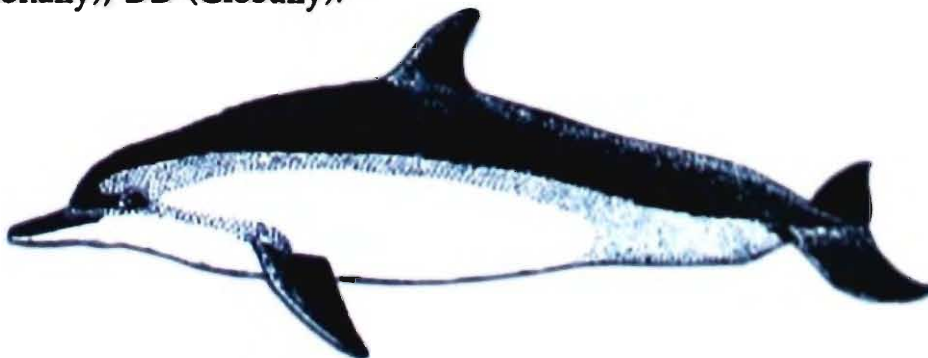
Conservation status : IUCN : LRcd; CITES : Appendix II.

Spinner Dolphin, *Stenella longirostris*

Medium sized dolphin, total length 1.7-2.4 m; body dark grey above, light grey on the sides and creamy white below, body stream-lined, not spotted, beak long and narrow, separated from the forehead by a prominent notch, a grey stripe runs from eye to flipper.

Distribution : *India* : Reported off east and west coasts of India from Orissa, Andhra Pradesh, Gulf of Mannar, Kerala, Karnataka, Maharashtra and Lakshadweep. *Elsewhere* : Worldwide; occurs in tropical waters.

Conservation status : IUCN : LRcd; IWPA : Sch. II, Part I; CITES : Appendix II; CAMIP : LRnt (Nationally), DD (Globally).

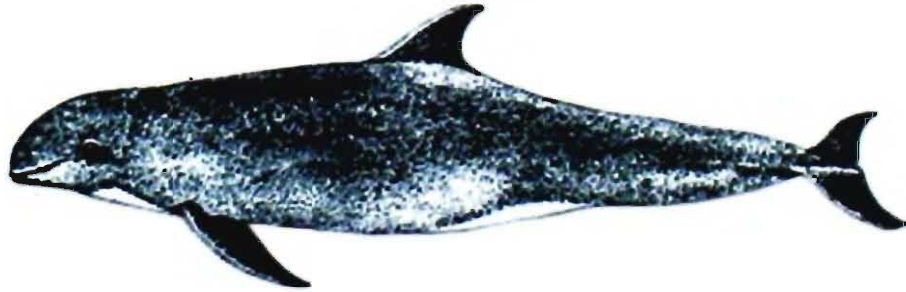


Spinner Dolphin, *Stenella longirostris*



Melon-headed Whale, *Peponocephala electra*

Body long and slim, total length 2.1-2.7 m; upper parts black, white blaze mark in pectoral region and belly; beak lacking; forehead rounded, curving steeply from anterior tip of rostrum to the blowhole and slightly overhanging the lower jaw, a dark cape runs across its back.



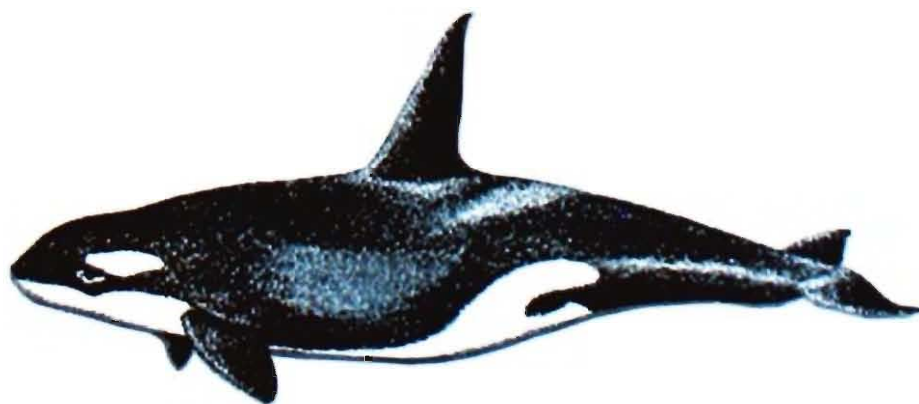
Melon-headed Whale, *Peponocephala electra*

Distribution : *India* : Reported from the Bay of Bengal off Andhra Pradesh, Tamil Nadu, Andaman islands and Lakshadweep. Worldwide, in tropical and subtropical waters.

Conservation status : IWPA : Sch. II, Part I; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Killer Whale, *Orcinus orca*

Largest member of the Dolphin family, total length 5.5-9.8 m, body blackish above, light grey behind the dorsal fin and white below forming a trident posteriorly; a white patch behind eyes and an obscure patch behind dorsal fin; bluntly rounded snout, devoid of beak; possesses high, erect and large dorsal fin and broadly oval pectoral flippers; most formidable of all aquatic mammalian predators; virtually all oceanic cetaceans, pinnipeds, penguins, sea birds, sea turtles and fishes constitute its food.



Killer Whale, *Orcinus orca*

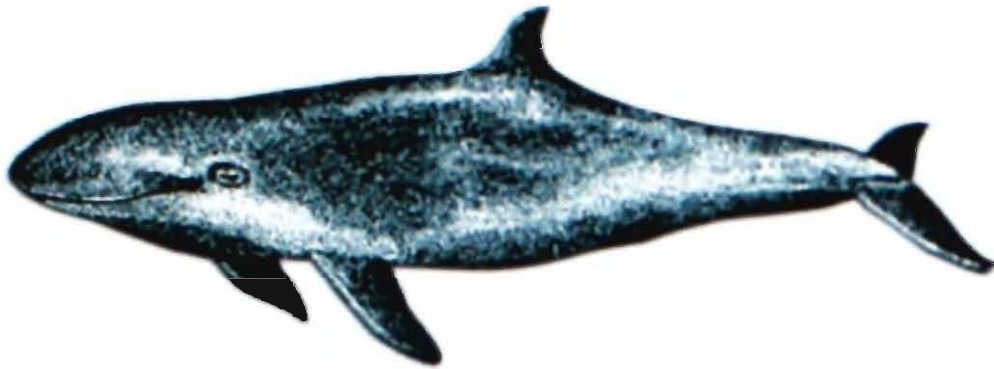
Distribution : *India* : Recorded off east coast (off Tamil Nadu), west coast (off Gujarat) and around Andaman & Nicobar and Lakshadweep islands. *Elsewhere* : Cosmopolitan, occurs in all oceans, most common in Arctic and Antarctic waters.

Conservation status : IUCN : LRcd; CAMP : LRnt (Nationally), DD (Globally).



False Killer Whale, *Pseudorca crassidens*

Smaller than the Killer Whale, total length 3.5-5.9 m; long slender body, head tapering, no distinct beak although snout projecting slightly beyond the tip of lower jaw; body uniformly dark in colour, white on the chest, backwardly curved dorsal fin and tapering flippers.



False Killer Whale, *Pseudorca crassidens*

Distribution : *India* : Reported off both east and west coasts and around Andaman and Nicobar islands. *Elsewhere* : Worldwide, in all temperate and tropical oceans and seas.

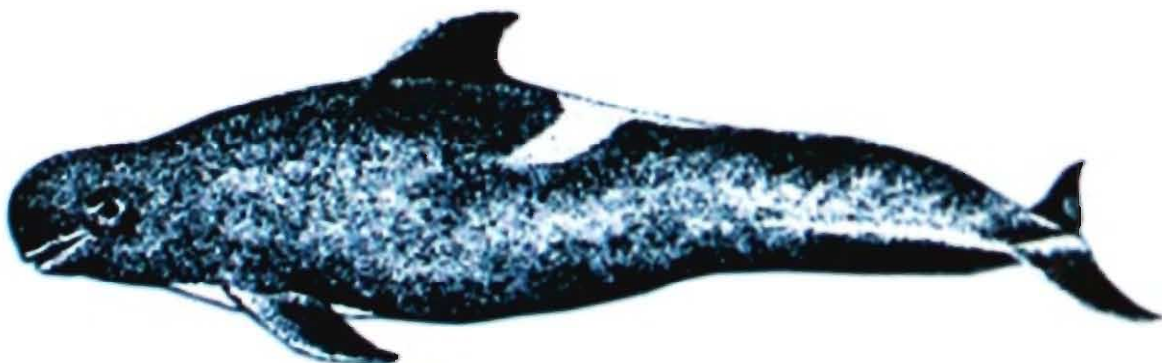
Conservation status : IWPA : Sch. II, Part I; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Short-finned Pilot Whale, *Globicephala macrorhynchus*

Body long and slender, black above, a white area on throat and a pale patch on dorsal fin; length 3.6-6.1 m; bulbous forehead and protruding lip like the Melon-headed Whale; a notch present between forehead and snout.

Distribution : *India* : Reported from the Bay of Bengal and Hugli River mouth, also from Gulf of Mannar and off Maharashtra in the west coast. *Elsewhere* : Worldwide, occurs in warm temperate and tropical waters.

Conservation status : IUCN : LRcd; CAMP : LRnt (Nationally), DD (Globally)



Short-finned Pilot Whale, *Globicephala macrorhynchus*



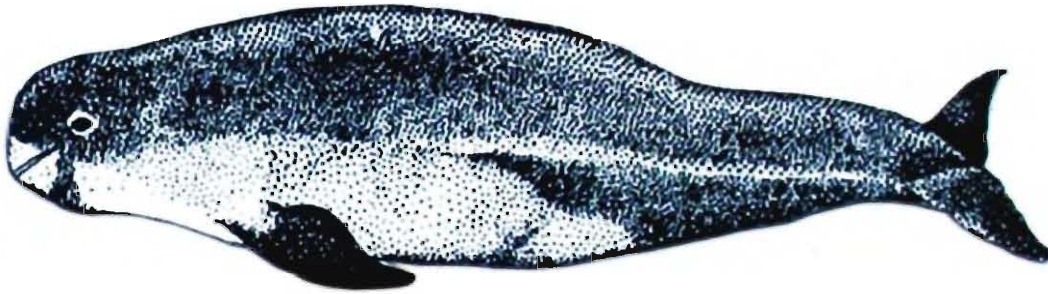
Family PHOCOENIDAE

PORPOISES

Only one species of porpoise occurs in Indian waters.

Black Finless Porpoise, *Neophocaena phocaenoides*

Small sized cetacean, 1.4-1.8 m in total length; body colour pale grey with bluish tinge on back and sides, pale underparts; abruptly rising forehead, no beak and no dorsal fin as its popular name signifies; occurs in coastal water and estuaries; feeds on squids, shrimps and small fishes.



Black Finless Porpoise, *Neophocaena phocaenoides*

Distribution : *India* : East and west coasts of India and Lakshadweep and reported from the Hugli estuary in West Bengal. *Elsewhere* : Coastal waters and estuaries from the Persian Gulf through Pakistan, India, Sri Lanka, Bangladesh, Myanmar to South-east Asia, north to China, Korea and Japan.

Conservation status : IUCN : DD; RDB : IK; CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Family PHYSETERIDAE

SPERM WHALES

The members of this family are popularly termed Sperm Whales as they possess spermaceti organ in their head. Their underslung lower jaw is shorter than the upper one and studded with teeth while the upper jaw is devoid of any tooth. Three species of Sperm Whales are found in Indian waters.



Sperm Whale, *Physeter macrocephalus*

The largest toothed-whale, 10-18 m in head and body length; head enormous, squarish, about one-third size of the body containing a large organ filled with spermaceti; colour of the body grey to dark bluish grey, its face, lips and belly may be paler or whitish; lower jaw considerably slender, studded with strong conical teeth; no dorsal fin but row of humps present on the posterior half of the back up to the tail; feeds primarily on cephalopods and fishes.



Sperm Whale, *Physeter macrocephalus*

Distribution : India : Reported around Andaman and Nicobar islands, Lakshadweep and off east and west coasts of India from Pondichery, Tamil Nadu, Kerala, Maharashtra and Gujarat. **Elsewhere :** In all oceans and adjoining seas of the world; found in deep waters.

Conservation status : IUCN : VU; IWPA : Sch. II, Part I, CITES : Appendix I; CAMP : LRnt (Nationally), DD (Globally).

Dwarf Sperm Whale, *Kogia simus*

Smaller than the sperm whale and having spermaceti organ in head as its popular name signifies; total length 2.1-2.7 m; bulbous forehead and under slung lower jaw studded with teeth, no teeth on upper jaw; body dark grey above, whitish below and gill-shaped white marks on sides of head; dorsal fin longer, located at anterior half of the back; primarily feeds on squids and sometimes crustaceans and fishes.



Dwarf Sperm Whale, *Kogia simus*

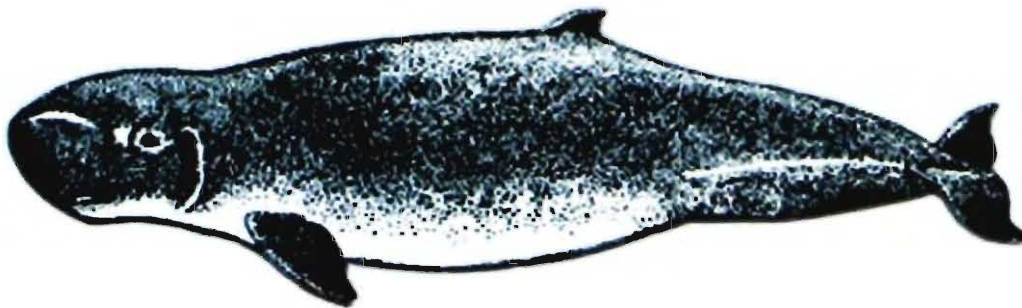


Distribution : India : Recorded from waters off both east and west coasts. *Elsewhere* : Worldwide, in tropical and temperate oceans.

Conservation status : IWPA : Sch. II, Part I; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Pygmy Sperm Whale, *Kogia breviceps*

Similar to the Dwarf Sperm Whale in having spermaceti organ in head, a bulbous forehead and under slung lower jaw studded with teeth but larger in size, 2.6-3.4 m in head and body length; dorsal fin smaller and located at posterior half of the body; body dark bluish grey above, whitish on throat and belly, possesses gill-shaped white marks on sides of head; feeds on cephalopods and fishes.



Pygmy Sperm Whale, *Kogia breviceps*

Distribution : India : Recorded from waters off both east and west coasts and Andaman & Nicobar islands. *Elsewhere* : Worldwide, in tropical and warm temperate oceans.

Conservation status : CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Family ZIPHIIDAE

BEAKED WHALES

The members of this family are popularly called Beaked Whales as they have distinct beaks which form a continuous smooth profile with the head in the genera *Ziphius* and *Mesoplodon*. They have one or two pairs of functional teeth in the lower jaw but upper jaw without any tooth. Their tail flukes are not notched in the centre. One species each of these two genera are reported from Indian waters.

Cuvier's Beaked Whale, *Ziphius cavirostris*

Medium sized, 5.2-7 m in head and body length; coloration variable, face and upper back creamy white, remainder of body dark grey to greyish fawn; sides covered with linear scars in males, greyish white spots in abdominal region in females; beak short and

blends with sloping forehead; lower jaw longer than the upper, studded with two functional teeth, protruding from the tip of the jaw in males; teeth usually not visible in females; tail fluke usually not notched in the centre; feeds primarily on squids and fishes.



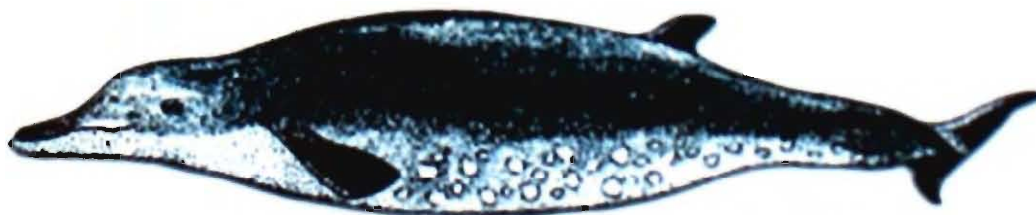
Cuvier's Beaked Whale, *Ziphius cavirostris*

Distribution : *India* : In deep water off Indian coasts and islands. *Elsewhere* : In the temperate and tropical waters of all oceans and adjoining seas.

Conservation status : IWPA : Sch. II; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Blainville's Beaked Whale, *Mesoplodon densirostris*

Smaller than the Cuvier's Beaked Whale, 3.5–4.7m in head and body length; body dark grey to bluish black, paler below, often with pale blotches or white scars; forehead low with a distinct beak, lower jaw highly arched, a pair of single-lobed large flattened teeth in lower jaw protrude over the upper jaw in males; tail fluke not notched in the middle; pelagic species, occurs mainly in deep water far from shore; feeds primarily on squids and fishes.



Blainville's Beaked Whale, *Mesoplodon densirostris*

Distribution : *India* : Recorded around Nicobar islands. *Elsewhere* : Worldwide, in tropical and subtropical waters.

Conservation status : IUCN : DD; IPWA : Sch. II.

Order SIRENIA

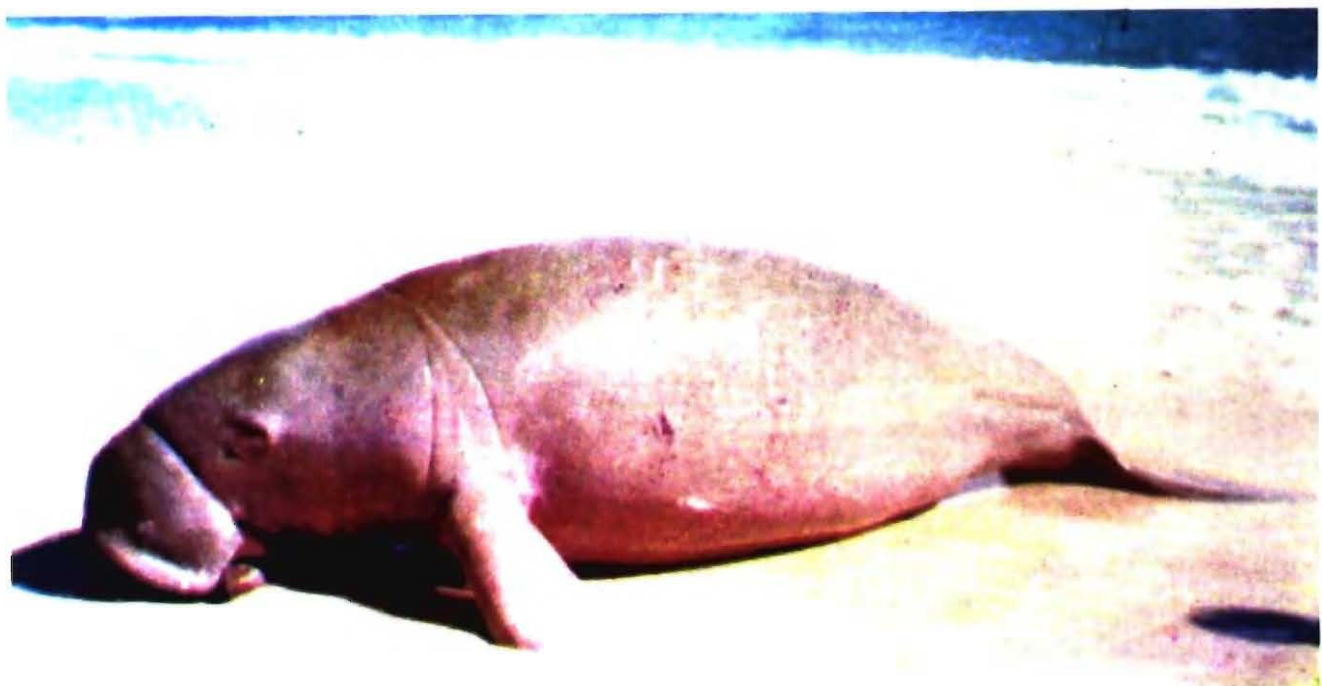
Sirenians are marine mammals which include Dugong and Manatees. Manatees do not occur in Indian waters. The genus *Dugong* is distributed in the coastal regions of the Indian ocean from East Africa to Australia about 15° latitude on each side of the equator. Dugongs are also popularly known as the Sea Cow and placed under the family Dugongidae which includes a single species *Dugong dugon*. This species inhabits Indian waters.

Dugong or Sea Cow, *Dugong dugon*

Stream-lined body, total length of body 2.5-3.2 m; general body colour brownish grey above and whitish below; massive head truncated anteriorly; fleshy, pad-like upper lip projecting over the lower and provided with several stiff bristles around the muzzle; forelimbs modified to flippers, more long than broad, tail fluke flattened and deeply notched; incisors tusk-like in males; strictly vegetarian, primarily feeds on sea grasses as well as some marine algae.

Distribution : India : Gulf of Mannar, Gulf of Kutchch, off Malabar Coast in Kerala and around Andaman & Nicobar islands. *Elsewhere :* Northern Australia, East Africa, Formosa, Indonesia, Kenya, Liukiu Islands, Madagascar, Mergui Archipelago, Malayan seas, Molluccas, Peninsular Myanmar, Philippines, seas of Portugal, Red Sea, Singapore, Sri Lanka and West Pacific Oceans.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).



Dugong or Sea Cow, *Dugong dugon*

Order PROBOSCIDEA

All the living Proboscidiens are placed under the family Elephantidae and known as elephants. Elephants are conveniently recognised by their enormous size, characteristic proboscis or trunk (which is the combination of nose and upper lip), pillar like limbs for supporting their enormous body weight, large fan-shaped ears and remarkable dentition, particularly second pair of incisors in the upper jaw, which are modified into tusks. Their necks are short and tails are of moderate length.

There are only two species of living elephants. The Asian elephants are distributed in south and south-east Asia including India and the African elephants found in Africa. Recently, however, some taxonomists treat African elephants under two species, viz., *Loxodonta africana* and *Loxodonta cyclotis*.





Asian or Indian Elephant, *Elephas maximus*

Smaller than the African Elephant but largest land animal of India; maximum length about 3.2 m at the shoulder, height of its adult male 2.45-2.75 m, two domed forehead, rounded back, smaller sail-like ears with front fold; trunk possesses single 'lip' at its tip; four nails on each hind foot; herbivorous; preferred habitats mixed deciduous and evergreen forests, scrub and grassland; feeds on various kinds of grasses, leaves and crops; prefers stems and leaves of plantain and bamboos.

Distribution : *India* : Wild elephants distributed in the Western Ghat, Andhra Pradesh, Orissa, Bihar, Uttar Pradesh, West Bengal and North-eastern states and, some feral herds in Andaman islands. *Elsewhere* : Bangladesh, China, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Sri Lanka, Thailand and Vietnam.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).



Asian or Indian Elephant, *Elephas maximus*

Order PERISSODACTYLA



The perissodactyls are medium to large sized mammals whose legs are elongate and foot provided with odd number of toes, each sheathed in cornified hooves. The hooves which encase the toes appear like a single hoof cleft in two. The main axis of the foot passes between third and the fourth toes and the third one is the longest on all four feet.

These odd toed hoofed mammals include the families Equidae (horses, asses and zebras), Tapiridae (tapirs) and Rhinocerotidae (rhinoceros) comprising of 18 species throughout the world. Indian perissodactyls are represented by three species under two families.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Equidae	1	2	—
2.	Rhinocerotidae	1	1	—
	Total	2	3	—

Family EQUIDAE

ASSES

As mentioned earlier, this family includes horses, asses and zebras. In equids only the third toe of each foot is functional and encased in a large solid hoof. The wild horses and zebras do not occur in India. Only two species of wild asses are found in this country.

Kulan, *Equus onager*

Also called the Indian Wild Ass; slightly larger than domestic ass, height at shoulder 1.1-1.2 m; rufescent grey to fawn or pale chestnut above and white below; mane erect and dark brown and continued as a dark brown stripe along the back to the root of the tail; inhabits flat, salt encrusted barren arid land having flat grass covered expanses, known as 'bets'; a grazer and feeds mainly on grasses of the bets; diurnal in habit; also raids wheat and millet fields during night.



Kulan, *Equus onager*

Distribution : *India* : Rann of Kutchch in Gujarat. *Elsewhere* : Russia, Ukraine, Iraq, Iran, Afghanistan, Pakistan, Turkmenia, Uzbekistan.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I.

Kiang, *Equus kiang*

Also known as the Tibetan Wild Ass; larger in size and, darker and redder in colour than the Indian Wild Ass; height at shoulder 1.35-1.40 m; its dorsal stripe narrower



extending from the neck till the base of tail; hooves large, like those of horse; found in the high cold plateau hill and valley; diurnal in habit; grazes on grass and sedge.

Distribution : *India* : Ladakh in Jammu & Kashmir and in Sikkim usually at high elevation. *Elsewhere* : China, Nepal and Tibet.

Conservation status : IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix II; CAMP : VU (Nationally), DD (Globally).

Kiang, *Equus kiang*

Family RHINOCEROTIDAE

RHINOCEROS

Contrast to equids, rhinos have three toes on forefeet and three on hind feet although only the third toe of the foot is functional. Their heavy build, short stumpy legs, thick skin thinly clad with hair or naked and one or two horns on the tip of nose make them distinctive. Only five species of Rhinoceros survive now throughout the globe. Out of these, only one is found in India.

Greater One-horned Rhinoceros, *Rhinoceros unicornis*

The largest of all living species of Rhinoceros of the globe and perhaps the largest land mammal next to the elephant with 3-3.15 m in head and body length and height at shoulder 1.7-1.85 m; one-horned as its popular name implies and hide hairless; colour of the body blackish grey, head boat-shaped, skin divided into large shields by heavy folds before and behind shoulders, in front of thighs and on buttocks; fold in front of shoulder not continued right across the back; skin studded with convex tubercles on shoulders, thighs and buttocks; inhabits grass jungle and prefers swampy ground; both diurnal and nocturnal; a grazer, feeds on grass.

Distribution : *India* : Assam and West Bengal; introduced in Dudhwa National Park, Uttar Pradesh. *Elsewhere* : Cambodia, Indonesia, Laos, Myanmar, Nepal, Thailand and Vietnam.

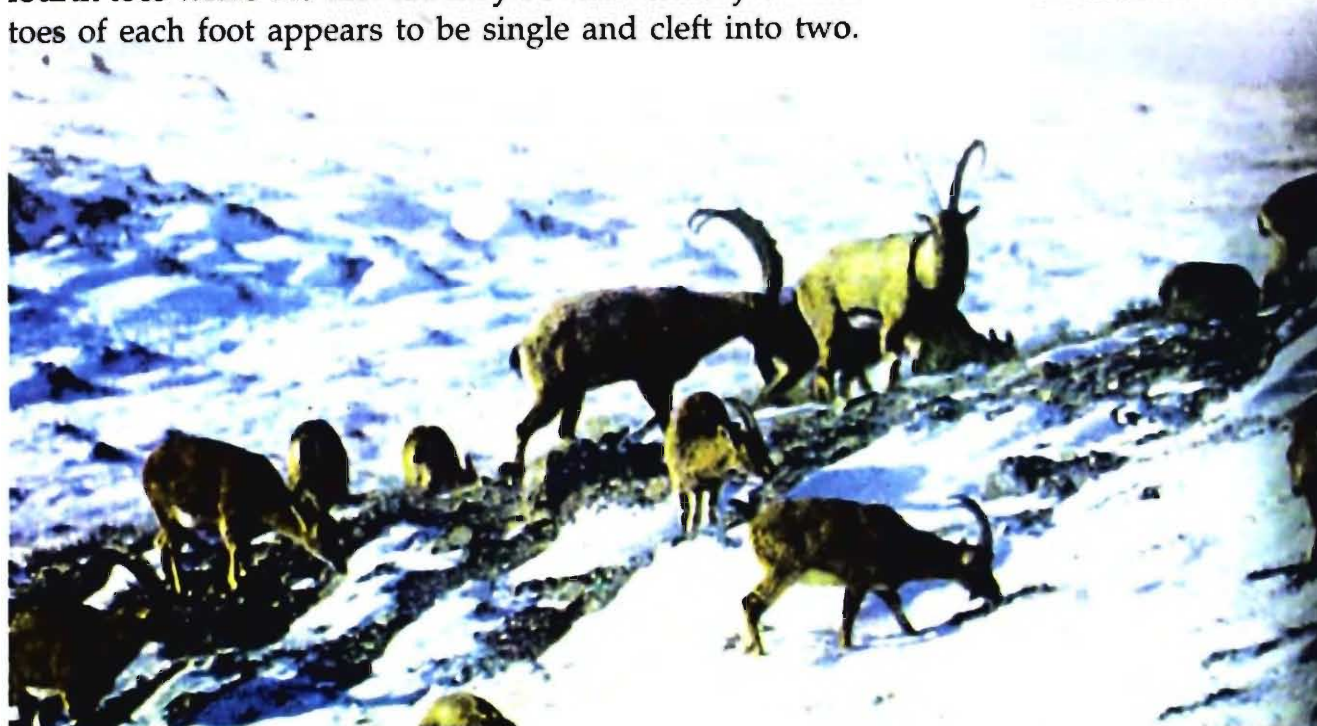
Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).



Greater One-horned Rhinoceros, *Rhinoceros unicornis*

Order ARTIODACTYLA

Artiodactyls are even-toed hoofed mammals. The third and fourth toes of each of their foot are large and equal in size, accompanied by diminishing size of the second and fourth toes while the first toe may be rudimentary or absent. The hoof which encases the toes of each foot appears to be single and cleft into two.



Indian artiodactyles are represented by 31 species under five families.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Bovidae	14	19	1
2.	Cervidae	3	7	–
3.	Moschidae	1	2	–
4.	Tragulidae	1	1	–
5.	Suidae	1	2	–
	Total	20	31	1

Family BOVIDAE CATTLE, SHEEP, GOAT AND ANTELOPE

This is the largest family of artiodactyls represented by 19 species in India and includes our most familiar mammals, the cattle, sheep and goat. The Indian bovids belong to three subfamilies Bovinae, Caprinae and Antilopinae.

Subfamily BOVINAE

WILD CATTLE

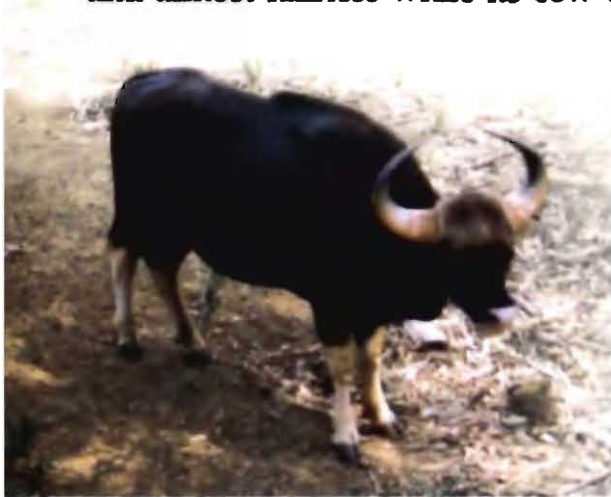
Genus 4

Species 5

In India this subfamily is represented by the following 5 species.

Gaur, *Bos frontalis*

Also known as the Indian Bison; the largest of all the wild cattle, height at shoulder 165-195 cm; huge head, deep massive body, relatively short limbs, a prominent muscular ridge from shoulder to the middle of back, ashy forehead and white feet; old bull black and almost hairless while its cow dark and reddish brown with short hair; inhabits hill

Gaur, *Bos frontalis*

forests in herds; both diurnal and nocturnal; primarily grazers and live on grasses, sometimes browse tree foliage.

Distribution : India : North-east India, duars of West Bengal, Bihar, Orissa and Peninsular India. **Elsewhere** : Cambodia, China, Malaysia, Myanmar, Nepal, Thailand, Tibet and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).

Yak, *Bos grunniens*

As massive in build as the Indian Bison but slightly smaller in size, 160-180 cm at shoulder height; drooping head, high humped shoulder, straight back and short sturdy limbs; body covered with coarse hairs; hairs very long on shoulder, lower part of each side, thigh, lower half of tail and on neck forming a great mane; horns smooth, round, projected forward and tips curved upwards; a tuft of hair present between horns; body blackish brown with a little white about the muzzle; wild yaks inhabit coldest and rugged snow-covered mountains in herds; diurnal in habit, feeds on rough-winged grasses and shrubs grown in the valley.

Distribution : India : Wild yaks occur in Ladak (Kashmir), Himachal Pradesh and occasionally in Kumaon Hills (Uttaranchal) at high elevation; domesticated yaks found throughout the high altitude of the Himalaya. **Elsewhere** : China, Nepal, Tibet.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : CR; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).

Yak, *Bos grunniens*



Wild Buffalo, *Bubalus bubalis*

A robust slaty-black cattle much like the domestic buffalo; height at shoulder 155-180 cm; having a straight back and feet dirty white; horns spread outwards almost horizontally from head and curve slightly upward and inwards near tips or curve upwards in a semicircle; seen in small herd in swampy grass jungles; both diurnal and nocturnal; mostly grazes on grass and occasionally enters cultivation.

Distribution : India : Assam, Arunachal, Meghalaya, Madhya Pradesh, western Orissa and eastern Maharashtra. *Elsewhere* : Bangladesh, Cambodia, Laos, Nepal, Thailand and Vietnam.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix III; CAMP : EN (Nationally).



Wild Buffalo, *Bubalus bubalis*

Photo Courtesy : Kaushik Deuti. Z.S.I.

Blue Bull or Nilgai, *Boselaphus tragocamelus*

Horse-like in build with high shoulder sloping downwards to a low rump; height at shoulder 130-150 cm; male iron-grey in ground colour having a white ring below each fetlock and two white spots on its cheek; a distinctive tuft of stiff black hairs also present



Blue Bull or Nilgai, *Boselaphus tragocamelus*

on throat of male; females and young males sandy brown; unlike true antelopes horns of its male not ringed, but distinctly keeled in front, triangular at base and circular near tips; both diurnal and nocturnal; usually inhabits hilly terrain or undulating plains having grasses and scrub; also invades cultivation and causes considerable damage to crops.

Distribution : India : Extending from the south of the Himalaya to Punjab, Haryana, Uttar Pradesh, Bihar, Andhra Pradesh, Madhya Pradesh, Karnataka, Maharashtra, Rajasthan and Gujarat. *Elsewhere* : Nepal and Pakistan.

Conservation status : IUCN : LRcd; IWPA : Sch. III; CAMP : LRlc (Nationally), DD (Globally).

Four-horned Antelope, *Tetracerus quadricornis*

Also called the Chowsingha and possesses two pairs of horns as its popular name signifies, front pair very short; unlike antelope, horns not ringed but keeled in front; females horn-less; height at shoulder 55-65 cm; dull red-brown above and white below, a dark stripe present on front of each leg; nocturnal in habit; usually inhabits dry deciduous forests and scrubs in undulating or hilly terrain.



Four-horned Antelope, *Tetracerus quadricornis*

Distribution : *India* : From south of the Himalaya to northern slopes of Nilgiri excluding West Bengal and North-east India. *Elsewhere* : Nepal.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CAMP : LRnt (Nationally), DD (Globally).

Subfamily CAPRINAE

WILD GOAT, SHEEP AND GOAT-ANTELOPE

Genus	6
Species	10
Endemic species	1

This subfamily includes wild goats and sheep. Indian wild goats comprise of the Markhor, the Ibex, the Takin, the Goral, the Serow and the Himalayan and the Nilgiri Tahrs. Within Indian limit all these species are found in different parts of the Himalaya except the Nilgiri Tahr, *Hemitragus hylocrius* which is endemic to this country.





Markhor, *Capra falconeri*

Massive build, having thick and silky fur; the largest mountain goat of the globe, height at shoulder 85-100 cm, possesses beard and a spectacular shaggy mane falling from neck and shoulder to the knees; horns widely divergent, compressed and spirally twisted, having a keel in front resembling the shape as its popular name implies (in Persian "mar-akhur" means "snake horned"); body colour varying with season, reddish brown in summer and rusty iron-grey in winter; inhabits juniper and birch forests as well as open barren slopes at elevations 600-3600 m; diurnal and crepuscular in habit; grazes primarily on grasses and forbs.



Markhor, *Capra falconeri*

Distribution : *India* : Western Himalaya in the states of Jammu & Kashmir,

Himachal Pradesh and Uttaranchal. *Elsewhere* : Afghanistan, Pakistan, Tadjikistan and Uzbekistan.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).

Ibex, *Capra sibirica*

A very large sturdy build goat, height at shoulder 80-100 cm; horn long, flat, curved backward like a scimitar and bossed with bold ridges; only male possesses long beard; body colour varying with season, male dark brown with irregular white patches; female yellowish brown in summer and yellowish white, tinged with grey in winter; diurnal in



Ibex, *Capra sibirica*

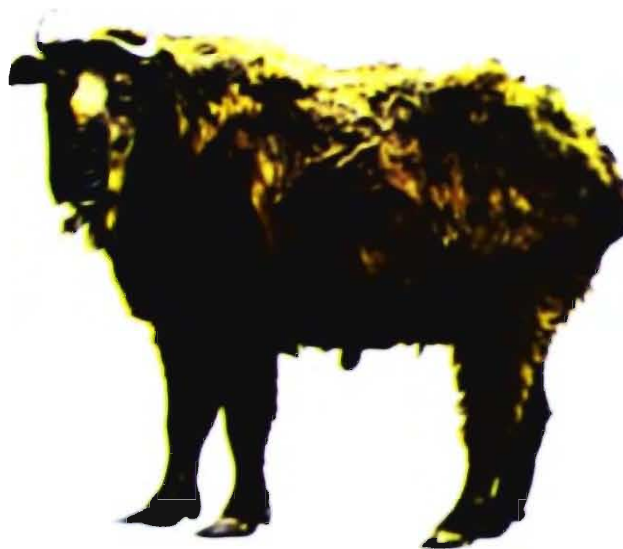
habit; inhabits high elevations at 2650-5500 m and descends lower elevation in spring for grazing new grasses; preferred habitat steep crags above snow line.

Distribution : *India* : Western Himalaya from Kashmir to Kumaon, covering the states of Jammu & Kashmir, Himachal Pradesh and Uttaranchal. *Elsewhere* : Afghanistan, China, Mongolia, Pakistan, former Russia.

Conservation status : IWPA : Sch. I; RDB : EN; CAMP : VU (Nationally), DD (Globally).

Takin, *Budorcas taxicolor*

A heavy build goat with convex face, hairy muzzle, considerably thick neck and, short and thick limbs with large lateral hooves; tail short as of a goat, height at shoulder 105-110 cm; in males horns thick, grow forward, bend downward and make a sharp turn rising upward and pointing backwards; in female horns smaller; adult male yellowish white to golden yellow in colour merging into reddish brown on the flanks and forequarter; female greyer. It is the national animal of Bhutan; inhabits tropical forests; diurnal in habit; preferred habitat steep mountain slopes among thick bamboo and rhododendron forests at elevations 2000-3000 m, also descends down up to 900 m.



Takin, *Budorcas taxicolor*

Distribution : *India* : The Mishmi Hills in Arunachal Pradesh; recently reported from Sikkim. *Elsewhere* : Bhutan, China, Myanmar and Tibet.

Conservation status : IUCN : VU; RDB : IK; CITES : Appendix II.

Himalayan Tahr, *Hemitragus jemlahicus*

Heavy bodied mountain goat with narrow erect ears and long robust limbs; height at shoulder 80-100 cm; body covered with long hairs; neck and shoulder covered with much longer hairs forming a mane and reaching to the knees; horns short, closely set, stout at base, keeled in front, curved backwards and wrinkled except near the tip; body colour



Himalayan Tahr, *Hemitragus jemlahicus*

reddish brown and its old male darker about the back and quarters; diurnal in habit; preferred habitat precipitous terrain with dense forests and scrubs at higher elevation between 2000-4400 m.

Distribution : *India* : Throughout the Himalaya from the Pir Panjal range in Jammu & Kashmir to Sikkim and in West Bengal (Darjeeling district). *Elsewhere* : Bhutan, China and Nepal.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : EN; CAMP : LRnt (Nationally), DD (Globally).



Nilgiri Tahr, *Hemitragus hylocrius*

Resembles the Himalayan Tahr in structure and general appearance but slightly larger in size, height at shoulder 100-110 cm; its short crisp coat without the flowing mane in



Nilgiri Tahr, *Hemitragus hylocrius*

male, rounded (not keeled) outer surface of horns and single pair of teats make it distinct from the Himalayan Tahr; general body colour of the Nilgiri Tahr dark yellowish brown with paler interface; old male dark brown, almost black with a grizzled or white saddle patch on the loin; horns rise parallel for some distance, then diverge and curve downwards; endemic to India; found at elevation between 1300-2600 m; diurnal in habit; inhabits montane grassland and rocky crags interspersed with shola forests.

ENDEMIC

Distribution : India : Tamil Nadu and Kerala between Nilgiri hills and Ashambu

Hills, also in isolated pockets between these hills along the crest of the ranges of the Western Ghats.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : VU; CAMP : EN.

Goral, *Naemorhedus goral*

Stockily build goat with an antelope-like face (hence known as the Goat-antelope) and bell-shaped ears; shorter, slightly diverged and backwardly curved horns marked with rings or ridges present in both sexes; height at shoulder 65-70 cm; a conspicuous crest present on its neck; yellowish grey to rufous brown in colour suffused with black; white patches present on upper lip, chin, throat and cheek; found at elevations 900-2400 m in the Himalaya and North-eastern hills, often near human habitation; grazes on grassy hill sides, often invades terraced cultivation; diurnal in habit.

Distribution : India : Throughout the Himalaya covering the states of Jammu & Kashmir, Himachal Pradesh, Uttaranchal, West Bengal (Darjeeling district), Sikkim, Arunachal Pradesh and hills of other North-eastern states. *Elsewhere* : Bhutan, China, Korea, Myanmar, Pakistan and Tibet.

Conservation status : IUCN : LRnt; CITES : Appendix I.



Goral, *Naemorhedus goral*

Serrow, *Naemorhedus sumatraensis*

Goat-like body, large head, donkey-like ears, thick neck and short limbs; horns black, conical and closely wrinkled for most of its length in both males and females; height at shoulder 90-110 cm; body colour varying from grizzled black to red having varying degree of white patches on muzzle, throat and chest; limbs chestnut above and dirty-white below; inhabits thickly forested gorges, subalpine scrubs and valleys; nocturnal and crepuscular in habit.

Distribution : *India* : From Jammu & Kashmir to the Mishmi Hills in Arunachal Pradesh, covering the states of Jammu & Kashmir, Himachal Pradesh, Uttaranchal, West Bengal (Darjeeling district) and Arunachal Pradesh at elevations 1850-3000 m. *Elsewhere* : Cambodia, China, Laos, Thailand, Myanmar, Malay peninsula, Nepal and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : VU (Nationally), DD (Globally).



Photo Courtesy : Binwaji Roy Chowdhury, The NEWS

Serrow, *Naemorhedus sumatraensis*

Argali or Nayan, *Ovis ammon*

The largest wild sheep of India; height at shoulder 110-120 cm; antelope in build; in male, horns massive, coarse wrinkled, never exceeding single circle; in female, horns shorter; body light brown, darker on shoulders and white on throat, chest, belly, inner side of limbs and front side of legs below the knee; male having a whitish ruff on neck and a white caudal disc surrounding the tail; lives at dry spots on rocky slopes with nearby feeding areas at higher elevation 3700 m and above in summer; descends to lower valleys in winter; diurnal in habit.



Argali or Nayan, *Ovis ammon*

Distribution : *India* : Ladak (Jammu & Kashmir), Spiti (Himachal Pradesh), Kumaon (Uttaranchal) and north of Sikkim. *Elsewhere* : South to Pamir Range in North-east Afghanistan, Bhutan, China, Kazakhstan, Kirgizia, Mongolia, Nepal, Pakistan and Tadzhikistan.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : IK; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).



Urial, *Ovis vignei*

Resembles the Argali but smaller and about the size of a domestic sheep; horns also shorter; height at shoulder 70-90 cm; in male, horns thick, strongly wrinkled and curved backwards forming a semicircle; in Ladak population horns turn inwards at the tip; body colour rufous grey or fawn in summer and fixed grey or brown in winter; found in herds in steep grassy hill slopes at moderate elevation; diurnal in habit.

Distribution : *India* : Only in Ladak (Kashmir). *Elsewhere* : China, North-east Iran to Afghanistan, Pakistan, Tadzhikistan and Uzbekistan.

Conservation status : IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : EN (Nationally).



Photo Courtesy : Jonna Van Grusen

Urial, *Ovis vignei*

Blue Sheep or Bharal, *Pseudois nayaur*

Shows both sheep and goat like characteristics; height at shoulder 80-90 cm; brownish grey in colour, mixed with slaty blue on its head and underparts; in male a black stripe runs along the middle of each flank and down the front of the legs; horns rounded, smooth and curved backwards over the neck, resembling a goat; its male clearly distinct from a male goat in absence of unpleasant "goaty" odour and beard; found at high

elevation of the Himalaya; diurnal in habit; grazes coarse grasses, moss and dwarf shrubs.

Distribution : *India* : Jammu & Kashmir (Ladak), Himachal Pradesh, Uttaranchal (Kumaon) and Sikkim. *Elsewhere* : China, Mongolia, Nepal, Pakistan, Pamir range in Tadzhikistan.

Conservation status : IUCN : LRnt; IWPA : Sch. I, Part I; RDB : VU; CAMP : LRlc (Nationally), DD (Globally).



Photo Courtesy : R. M. Sharma, Z.S.I.

Blue Sheep or Bharal, *Pseudois nayaur*

Subfamily ANTILOPINAE**ANTELOPES**

Genus 4

Species 4

Antelopes and gazelles bear characters common to both the sheep and goats. But their more or less cylindrical and often lyre-shaped horns which are nearly solid throughout with bony cores make them distinctive. Gazelles are further distinguished by the presence of white streak on each side of the face and tufts of hairs emerging from knees. Four species of antelopes and gazelles occur in India. Out of these, two species, the Chiru or Tibetan Antelope and the Tibetan Gazelle inhabit the Tibetan plateau in the temperate zone while the remaining two, the Black Buck and the Chinkara live in tropical region. All these species usually live in open plains and grasslands.

**Black Buck, *Antelope cervicapra***

Males blackish brown or almost black in colour with white underparts and a pair of long, spirally twisted and closely ringed horns; females yellowish fawn above, white below and hornless; height at shoulder 75-85 cm; diurnal in habit; preferred habitat arid grasslands, semiarid zones and open scrubs.

**Black Buck, *Antelope cervicapra***

Distribution : *India* : Throughout the plains of India excepting North-east India, West Bengal and west coast. *Elsewhere* : Pakistan, introduced to Nepal, Texas (U.S.A.) and Argentina.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix III; CAMP : LR1c (Nationally), DD (Globally).



Indian Gazelle or Chinkara, *Gazella bennettii*

Slender bodied antelope, height at shoulder 65 cm, body colour sandy brown to light chestnut with white underparts; horns slightly curved, closely ringed and relatively long in male; in female, horns when present shorter and smooth; inhabits plains and low hills; diurnal in habit.



Indian Gazelle or Chinkara, *Gazella bennettii*

Distribution : India : North-western and Central India, including the Thar desert in Rajasthan and Gujarat extending southwards to a little south of the Krishna river. *Elsewhere* : Iran to Pakistan.

Conservation status : IUCN : LRcd; IWPA : Sch. II, Part I; RDB : VU; CAMP : LRlc (Nationally), DD (Globally).

Tibetan Antelope or Chiru, *Pantholops hodgsonii*

Rufous brown or pale fawn in colour, height at shoulder 75-85 cm; face black and underside white; a black or dark brown stripe runs down the front of each leg; muzzle swollen in male and nostril characteristically possesses extensive sac; body covered with woolly coat enabling it to adapt in very cold temperature; in male, horns long, erect, arising close together, slightly curved forward and ringed in front, not behind; females hornless; inhabits cold desert at elevation 3250-5000 m and prefers steppe grassland; diurnal and crepuscular in habit.

Distribution : India : In Chang Chen Mo Valley in Northern Ladak (Kashmir). *Elsewhere* : China and Nepal.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : IK; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).



Tibetan Antelope or Chiru, *Pantholops hodgsonii*



Tibetan Gazelle, *Procapra picticaudata*

Distinctive in having short and slaty grey coloured coat in summer, dense and sandy fawn colour in winter; height at shoulder 60 cm; a white rump patch extending all round the base of tail forming a "caudal disc"; in male, horns rise vertically, curve sharply backwark and ringed; females without horns; inhabits steppes and alpine meadows usually between the elevations of 4200-5500 m; diurnal in habit.

Distribution : India : North-eastern Ladak (Jammu & Kashmir), hills of north Kumaon (Uttaranchal) and Sikkim. *Elsewhere* : China, Chinese Turkistan and Mongolia.

Conservation status : IUCN : LRnt; IWPA : Sch. I, Part I; RDB : IK; CAMP : CR (Nationally), DD (Globally).

Family CERVIDAE DEER

The Deer are ruminants with solid horns which are shed periodically and grow again. This character differentiates it from the cattle, sheep, goats and antelopes whose horns are permanent and have two components – a hollow outer cover and a core of bone inside. In India, this family is represented by 7 species.





Spotted Deer, *Axis axis*

The commonest wild deer in India; instantly recognised by the presence of profuse white spots on its bright rufous fawn coat as its popular name implies; ground colour in



old males dark brownish; height at shoulder, 90 cm; antlers with three tines—a long brow tine projects nearly at right angle to the beam and two branch tines at the top; both diurnal and nocturnal; inhabits forests; lives in herds, sometimes enters cultivation and causes damage to crops.

Distribution : India : Throughout India, northwards upto Kumoan (Uttaranchal), Sikkim and West Bengal and

east upto Assam; introduced in Andaman islands. *Elsewhere* : Nepal and Sri Lanka.

Conservation status : RDB : Sch. IV; CAMP : LRlc (Nationally), DD (Globally).

Hog Deer, *Axis porcinus*

Pig-like squat body, height at shoulder 60-70 cm; brown to darker brown in colour with yellowish to reddish tinge and paler underparts; possesses a short brow tine after which the beam almost straight giving rise to longer foretine and shorter hindtine; it runs keeping its head low down just like hog and unlike deer; inhabits low alluvial grass plains and prefers river side grass jungles and open grass plains; both diurnal and nocturnal.

Distribution : India : North and North-east India. *Elsewhere* : Cambodia, Laos, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam.

Conservation status : IWPA : Sch. III; CAMP : LRnt (Nationally), DD (Globally).



Photo Courtesy : Kaushik Deuti, Z.S.I.

Hog Deer, *Axis porcinus*

Swamp Deer, *Cervus duvaucelii*



Also called the Barasingha; a splendid deer with much branched antlers in stags, having usually 10-14 tines, sometimes as many as 20 tines; height at shoulder 115-135 cm; its coat fine and woolly, neck with mane; body colour brown to yellowish brown in winter and paler in summer; young spotted; both diurnal and nocturnal; inhabits swampy and dry grasslands and sal forests; also seen on outskirts of the forests and on flat or undulating ground.

Distribution : India : The Terai and the Duars of North and Eastern India from Himachal Pradesh to Assam and in Madhya Pradesh. *Elsewhere* : Nepal.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix I; CAMP : EN (Nationally), DD (Globally).

Swamp Deer, *Cervus duvaucelii*

Sambar, *Cervus unicolor*

The largest Indian deer with elegant horns; height at shoulder 150 cm; general colour brown with a yellowish or greyish tinge, underparts paler; in male, mane formed around neck and throat; antlers stout and rugged; brow tine forms acute angle with the beam which divides into two equal tines; a typical forest deer; both diurnal and nocturnal.

Distribution : India : Throughout India except high mountains and deserts. *Elsewhere* : Australia, China, Indonesia, Malaysia, Myanmar, Taiwan and Sri Lanka.

Conservation status : IWPA : Sch. III; CAMP : LR1c (Nationally), DD (Globally).



Sambar, *Cervus unicolor*



Brow-antlered Deer, *Cervus eldii*

Manipur race of the Brow-antlered Deer popularly called the Sangai; a sambar-like deer with graceful antlers growing from close-set pedicels; height at shoulder 100-120 cm; possesses an extremely long brow tine that joins the main beam to form a continuous



Brow-antlered Deer, *Cervus eldii*

curve at right angle to the pedicel; beam remains unbranched for more than half of its length and then divides to form two to three and sometimes more terminal tines; males dark brown in winter and fawn in summer, females light fawn and young spotted; nocturnal in habit; prefers scrub jungle and floating swamp between rivers and hills; prefers Tshing Kombong grass (*Saccharum latifolium*) as food.

Distribution : *India* : In wild it is restricted to the Keibul Lamjao National Park in Manipur. *Elsewhere* : Cambodia, China, Laos, Myanmar, Thailand and Vietnam.

Conservation status : IUCN : VU; IWPA : Sch. I, Part I; RDB : CR; CITES : Appendix I; CAMP : CR.

Kashmir Red Deer, *Cervus elaphus*

A large deer with a pair of spreading antlers; also called the Kashmir Stag or the Hangul; height at shoulder 120-125 cm; each antler possesses 5-6 tines, sometimes more; light to dark brown in colour, a white rump patch or "caudal disc" extends for a short distance over the tail, both diurnal and nocturnal; inhabits broad-leaved and coniferous forests and meadows at elevations 1750-3650 m.

Distribution : *India* : Northern side of Kashmir Valley (Dachigam) and north Chamba (Himachal Pradesh). *Elsewhere* : Afghanistan, Algeria, Argentina, Australia, Central Asia, Chile, China, Europe east to Crimea and Caucasus, Corsica and Sardinia, Iran, Mongolia, Morocco, North America, New Zealand, Russia, Turkistan east to Siberia, Usuru region, Turkey and U.S.A.

Conservation status : IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).



Kashmir Red Deer, *Cervus elaphus*

Indian Muntjack or Barking Deer, *Muntiacus muntjak*

A small forest deer, height at shoulder 50-75 cm; glossy brown in colour, antlers small having a short brown tine and unbranched beam; also called Rib-faced Deer as its antlers set on bony hair-covered pedicel running down each side of the face as bony ridges; in females horns replaced by tufts of bristly hair; because of its sharp bark it is also known as the Barking Deer; both diurnal and nocturnal; inhabits forests and thick jungles.



Photo Courtesy : T. P. Bhattacharya, Z.S.I

Indian Muntjack or Barking Deer, *Muntiacus muntjak*

Distribution : *India* : Almost throughout the country except Jammu & Kashmir and the desert region. *Elsewhere* : Bangladesh, Bhutan, Cambodia, China, Indonesia, Laos, Malaysia, Nepal, Pakistan, Sri Lanka and Vietnam.

Conservation status : IWPA : Sch. III; CAMP : LRIc (Nationally), DD (Globally).

Family MOSCHIDAE MUSK DEER

The Musk Deer is distinguished by its small head, pointed face, large ears and a small tail. It lacks antlers and facial glands and possesses gall bladder. These characteristic features make it distinct from the deer and place it between the deer and the antelope. Its male possesses a pair of curved tusks (well developed canine teeth) and a musk gland beneath the skin of abdomen near the naval. Two species of Musk Deer are found in India—the Forest Musk Deer and the Alpine Musk Deer. According to some authority the latter is a subspecies of the former.



Forest Musk Deer, *Moschus chrysogaster*

A shy deer, height at shoulder 50 cm; coat consists of thick, bristly and pithy hairs with a shed of sepia brown to golden red, speckled with grey; excepting the large tuft at the tip and a tuft at the base, its tail is naked and remains buried in the long hairs of the anal region; inhabits subalpine and alpine forests above 2500 m; nocturnal or crepuscular and feeds on grass, lichen, leaves and flowers.

Distribution : India : In the Himalaya from Kashmir to Sikkim, covering the states of Jammu & Kashmir, Himachal Pradesh, Uttaranchal and Sikkim. *Elsewhere :* Bhutan, Himalaya of North Afghanistan, North Pakistan, Nepal, Central Tibet to Central China.

Conservation status : IUCN : LRnt; IWPA : Sch. I; RDB : VU; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).



Forest Musk Deer, *Moschus chrysogaster*

Alpine Musk Deer, *Moschus fuscus*

Colour of the deer varying above and below; head, ears and legs black, neck often lighter; throat dark often with two incomplete yellow 'collars'; rump with ochrey tones



but black on buttocks; smaller than the Forest Musk Deer; some authorities treat this species as the subspecies of *M. chrysogaster*; habit and habitats similar to those of the Forest Musk Deer.

Distribution : India : Sikkim, Assam and Arunachal Pradesh. *Elsewhere :* Bhutan, China, Myanmar, Nepal and Tibet.

Conservation status : IWPA : Sch. I; CITES : Appendix I.

Alpine Musk Deer, *Moschus fuscus*

Family TRAGULIDAE

MOUSE DEER

This family is represented by one species in India.

Mouse Deer or Indian Spotted Chevrotain, *Moschiola meminna*

Smallest among Indian deer with slender limbs and high hind quarters; height at shoulder 25-30 cm; body colour brown, speckled with yellow and underface white; elongated white and buff spots present on the sides of its body and three white spots on



Mouse Deer or Indian Spotted Chevrotain,
Moschiola meminna

its throat; like the Musk Deer it lacks antlers and furnished with a pair of tusks, better developed in males; unlike ruminants (having four-chambered stomach) it possesses three-chambered stomach; nocturnal and crepuscular in habit; feeds on grass, vegetation and fruits.

Distribution : India : Throughout southern India from Tamil Nadu to Madhya Pradesh.
Elsewhere : Nepal and Sri Lanka.

Conservation status : RDB : IK; CAMP : I.Rnt (Nationally), DD (Globally)

Family SUIDAE

PIGS

The pigs are distinctive by its elongate head with an abruptly truncated mobile snout which ends in a flat disc containing the nostrils. In India, this family is represented by two species.





Wild Pig, *Sus scrofa*

Body colour usually black mixed with grey, brown and white hairs; height at shoulder 90 cm; its coat sparse, crest or mane black; inhabits forested area, sometimes enters cultivation; both diurnal and nocturnal; omnivorous and feeds on roots, tubers, crops, insects, snakes, offal and carrion.



Wild Pig, *Sus scrofa*

Distribution : India : Almost throughout the country including Andaman and Nicobar islands. *Elsewhere :* Australia, China, Central and South America, Fiji islands, Europe, Galapagos, Hawaii islands, Indonesia, Lesser Sunda islands, Mauritius, Molucca islands, Norway, many oceanic islands, New Guinea, South Russia to middle east, Sri Lanka, Sweden, South Africa, Solomon islands, USA and West Indies.

Conservation status : IWPA : Sch. I; RDB : IK; CAMP : LRLc (Nationally), DD (Globally).

Pygmy Hog, *Sus salvanius*

Smallest wild pig as its popular name implies; about 65 cm in length and height at shoulder 25-30 cm; brown to blackish brown in colour; body hairs scanty and small, but those of the hinder portion of neck and middle of the back longer without forming any crest; ears small and naked; inhabits tall grass jungle and seldom seen; nocturnal in habit; diet primarily tubers of grasses.

Distribution : India : Assam and Sikkim terai. *Elsewhere :* Bhutan and Nepal.

Conservation status : IUCN : CR; IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix I; CAMP : CR (Nationally), DD (Globally).



Pygmy Hog, *Sus salvanius*

Order PHOLIDOTA

This order comprises of only one family, Manidae which also contains a single living genus *Manis*, the representatives of which are distributed in Asia and Africa.

The members of the genus *Manis* are popularly called Pangolins. The term pangolin is derived from a Malayan phrase "Pen Gullings" which means "rolling ball". In fact, Pangolins, when threatened, curl their body like an armoured ball under their broad scaly tail drawing their head towards the belly so that all their vulnerable body parts are well protected. These animals are also called the Scaly Anteaters because of their scaled body and primarily ant-eating food habit.

The pangolin can be conveniently recognised by the presence of large movable overlapping scales. These scales cover the entire body like its armour excepting its snout, chin, sides of face, throat and inner surface of limbs. Two species of pangolins occur in India.

Indian Pangolin, *Manis crassicaudata*

Body covered dorsally by dirty yellow scales which are sparsely covered with reddish brown hair; head and body length 60-70 cm; scales larger, rows of scales around mid body 11-13, ear conch rudimentary; inhabits sub-tropical broad-leaved forests and tropical wet, semi-evergreen and moist forests; nocturnal in habit; feeds on ants and termites.

Distribution : India : North-eastern states including Sikkim and northern part of West Bengal. *Elsewhere :* Bangladesh, China, Pakistan and Sri Lanka.



Indian Pangolin, *Manis crassicaudata*



Conservation status : IUCN : LRnt; IWPA : Sch. I, Part I; RDB : VU; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Chinese Pangolin, *Manis pentadactyla*

Similar to the Indian Pangolin but smaller in size; head and body length 40-58 cm; rows of scales around the mid body 16-19; under surface of body cloathed with coarse bristly hair; a few such hair grow between dorsal scales; ear conch well developed; occurs sporadically throughout the plains and lower slopes of Indian hills; inhabits deciduous forests and grasslands; nocturnal in habit; primarily insect eaters.



Chinese Pangolin, *Manis pentadactyla*

Distribution : India : From the south of the Himalaya to Kanyakumari excepting North-east region. *Elsewhere* : Cambodia, China, Formosa, Laos, Nepal, Taiwan and Vietnam.

Conservation status : IUCN : LRnt; IWPA : Sch. I, Part I; RDB : IK; CITES : Appendix II; CAMP : LRnt (Nationally), DD (Globally).

Order RODENTIA

The rodents are the most diverse group in mammals and include squirrels, marmots, rats and mice, voles, gerbils, hamsters, dormices, porcupines and few others. As mentioned earlier, it is the second largest group amongst Indian mammals in number of species, next to bats. The most distinctive character of rodents is the presence of two pairs of sharp, chisel-shaped incisors, one pair in the upper jaw and one pair in the lower. These teeth are placed within sockets which are inserted deep into the jaw bones and grow throughout life. Canines and anterior premolars are absent, leaving a space between the incisor and the cheekteeth.



Rodents are well adapted to varied habitats. Some are fossorial, many terrestrial, still others arboreal and some adapted for semiaquatic life.

In India rodents are represented by 104 species comprising about 25.9 per cent of the total Indian mammals. Out of these, 17 species are endemic to this country. Indian rodents belong to following four families.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Sciuridae	12	30	3
2.	Muridae	28	70	14
3.	Dipodidae	1	1	–
4.	Hystricidae	2	3	–
	Total	43	104	17



Family SCIURIDAE

SQUIRRELS AND MARMOTS

Slender body, long bushy tail and arboreal habits make squirrels distinctive from other rodents. This family comprises two subfamilies Sciurinae and Petauristinae. The first one includes both striped and unstriped squirrels, giant squirrels and marmots. On the other hand Petauristinae include flying squirrels whose limbs are connected by flying membrane called patagium. With the aid of this flying membrane they can glide through the air as and when they leap from tree to tree. The flying squirrels are nocturnal and usually take shelter in tree holes among branches while other squirrels and marmots are mainly diurnal. Squirrels usually feed on fruits, nuts and other plant material although some are seen to take animal food and insects.

Subfamily SCIURINAE

SQUIRRELS, MARMOTS

Genus	6
Species	17
Endemic species	2

Striped Squirrels

Indian Striped Squirrels belong to six species, of which one species, the Jungle Stripped Squirrel is endemic to this country. These squirrels are diurnal, arboreal and spend some time on ground.

Three-striped Palm Squirrel, *Funambulus palmarum*

Three pale stripes on its back running parallel from head to tail make it distinct; head and body length 12-15 cm and tail 14-15 cm; tail possesses a bold reddish brown mid ventral line; body colour greyish brown or olive brown.



Photo Courtesy : Gujarat Forest Deptt.

Three-striped Palm Squirrel, *Funambulus palmarum*

Distribution : India : West Bengal, Bihar, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharastra and Madhya Pradesh. *Elsewhere* : Sri Lanka.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Five-striped Palm Squirrel, *Funambulus pennanti*

Almost similar to the Three-striped Palm Squirrel in body colour as well as head and body and, tail length; presence of five pale stripes on its back and absence of mid-dorsal line on its tail make it distinct; most conspicuous Indian squirrel.

Distribution : India : North, North-east, West and Central India and Andaman islands. *Elsewhere* : Afghanistan, Iran, Nepal and Pakistan.



Photo Courtesy : Supriya Nandi, Z.S.I.

Five-striped Palm Squirrel,
Funambulus pennanti

Conservation status : IWPA : Sch. IV; CAMP : LRlc (Nationally), DD (Globally).

Jungle Striped Squirrel, *Funambulus tristriatus*

ENDEMIC

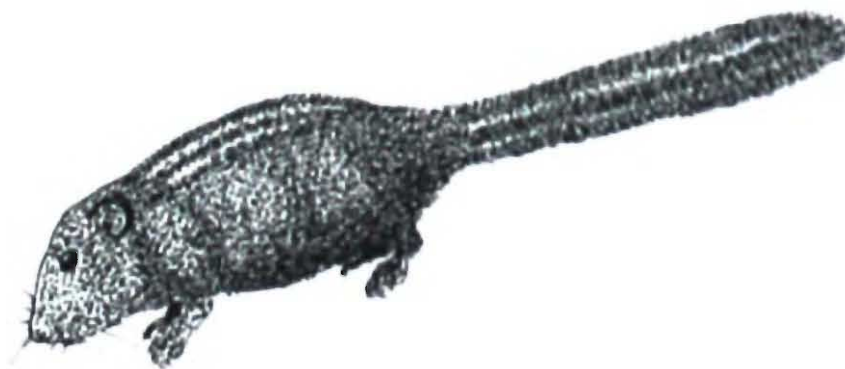
Body black or blackish brown; head and body length 18 cm, tail most often shorter than that length; three narrow white to pale buff stripes on the back like the Three-striped Palm Squirrel but stripes sub-equal and usually not extending to root of the tail; endemic to India; inhabits evergreen, semi-evergreen and moist deciduous forests, also in shrubs and garden.

Distribution : India : In the Western Ghats, Kerala, Maharashtra, Goa and Karnataka.

Conservation status : IUCN ; LRnt; CAMP : LRnt (Nationally)

Dusky-striped Squirrel, *Funambulus sublineatus*

Coat speckled with dull greenish grey, underparts dull brown; possesses three pale stripes alternating with four dark longitudinal stripes on the dorsal side; head and body length 10.7 cm; tail 11.2 cm; inhabits dense forests in the hill ranges.



Dusky-striped Squirrel, *Funambulus sublineatus*

Distribution : India : Western Ghats. *Elsewhere* : Sri Lanka.

Conservation status : CAMP : DD (Nationally & Globally).



Layard's Striped Squirrel, *Funambulus layardi*

Larger than the Jungle Striped Squirrel, upper part dark dingy olive with ashy shade and under parts reddish brown; head, cheeks and belly rufous; a narrow rufous ring round the eye; three stripes on the back, mid stripe being orange; head and body length 19 cm, tail almost of same length, reddish brown on dorsal part but its tip black; inhabits hill forests.

Distribution : India : Kerala. *Elsewhere* : Sri Lanka.

Conservation status : CAMP : DD (Nationally & Globally).

Himalayan Striped Squirrel, *Tamiops macclellandi*

Body colour greyish brown with black; head and body length 10-13 cm, tail 8-11 cm; brown and buff stripes on the back varying in number, median stripe black, ear tufts black with conspicuous white tip; inhabits hilly forests usually above 1525 m, occasionally comes down to the plains.

Distribution : India : North-east India in Sikkim, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland, Meghalaya and also in West Bengal. *Elsewhere* : Bhutan, China, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Unstriped Himalayan Squirrels

Six species of unstriped squirrels belonging to the genera *Callosciurus* and *Dremomys* are found in the Eastern Himalaya and North-eastern hills. The generic name *Callosciurus* means beautiful squirrels. In fact, squirrels belonging to this genus are brilliantly coloured. They are diurnal and arboreal, inhabit montane forests and low land and live in hollow trees or construct nests of leaves and twigs in tree branches.

Members of the genus *Dremomys* are generally dull coloured without any conspicuous pattern. They inhabit mainly montanae forests and spend considerable time on ground and on trees usually within 4 - 5 m from the ground. Three species each of *Callosciurus* and *Dermomys* occur in India.

Hoary-bellied Himalayan Squirrel, *Callosciurus pygerythrus*

Also called the Irrawady Squirrel; dark brown in colour, belly greyish or pale rufous; head and body length 18-22 cm, tail 17-19 cm; snout blunt; dorsal hairs longer having two light yellow rings for which it looks hoary; inhabits dense forests from high to low altitudes (1500-2000 m) and near human habitation.

Distribution : India : Northern West Bengal, Sikkim and all North-eastern states. *Elsewhere* : Bangladesh, Bhutan, Cambodia, China, Indonesia, Laos, Myanmar, Nepal and Vietnam.

Conservation status : IUCN : VU; CAMP : LRnt (Nationally), DD (Globally).



Photo Courtesy : T. P. Bhattacharya, Z.S.I.

Hoary-bellied Himalayan Squirrel, *Callosciurus pygerythrus*

Pallas's squirrel, *Callosciurus erythraeus*

Olive brown or black with underparts orange-brown or reddish; head and body length 20-26 cm, tail 18-22 cm; inhabits temperate and deciduous forests at altitudes 1500-5000 m.

Distribution : India : All North-eastern states. *Elsewhere* : Bhutan, Cambodia, China, Laos, Malaysia, Myanmar, Taiwan, Thailand and Vietnam.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Gray-bellied Squirrel, *Callosciurus caniceps*

Dorsal colour grizzled black and yellow, ventral nearly of same colour; nose sharply contrasted reddish brown; hands and feet dark; tail with a black tuft terminally.

Distribution : India : Sikkim. *Elsewhere* : Bhutan, China, Thailand, Malaysia and adjacent islands and Myanmar.

Conservation status : Not known.

Orange-bellied Himalayan Squirrel, *Dremomys lokriah*

Dark rufous brown squirrel having bright orange belly, chest and throat; head and body length 20 cm, tail little longer; dorsal coat brown at base, yellow at middle and black at the tip; long pointed snout; inhabits hilly forests of varying altitude (1525-2750 m).

Distribution : India : All North-eastern States, Sikkim and northern West Bengal. *Elsewhere* : Bhutan, Myanmar, Nepal and Tibet.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).



Red-cheeked Squirrel, *Dremomys rufigenis*

Dorsal colour dark-greenish brown, belly or underparts white or grey, cheeks red in colour; a pale patch behind the ear; tail black dorsally, deep red ventrally throughout its length; cheeks red in colour.

Distribution : India : Nagaland. *Elsewhere* : Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Thailand and Vietnam.

Conservation status : not known

Perny's Long-nosed Squirrel, *Dremomys pernyi*

Dorsal colour same as that of the Red-cheeked Squirrel, but ventral colour greyish or whitish grey; cheeks of same colour as head; tail yellowish or brownish in the middle, sides with black mixed white hairs.

Distribution : India : Arunachal Pradesh, Assam, Manipur and Nagaland. *Elsewhere* : China, Myanmar, Taiwan and Vietnam.

Conservation status : Not known.

Giant Squirrels

Giant Squirrels are forest dwelling animals. They are strictly arboreal and very seldom come to the forest floor, that too, usually to chase another squirrel or to follow a female during the breeding season. These squirrels can take amazing leaps (even 6 metre or more) from tree to tree with limbs outspread. They are diurnal; their diet consists of fruits, nuts, bark of some trees and insects. Three species of Giant Squirrels belonging to the genus *Ratufa* occur in India. Out of these, one species, the Indian Giant Squirrel is endemic to this country.

Malayan Giant Squirrel, *Ratufa bicolor*

Deep brown or blackish coat with buff coloured underparts; head and body length 35-40 cm, tail 60 cm; inhabits forests usually at the summits of tall trees.

Distribution : India : All North-eastern States, Sikkim and northern West Bengal. *Elsewhere* : Bhutan, Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand, Tibet and Vietnam.

Conservation status : IUPA : Sch. II, Part II; CITES : Appendix II; CAMP : VU (Nationally), DD (Globally).

Malayan Giant Squirrel, *Ratufa bicolor*



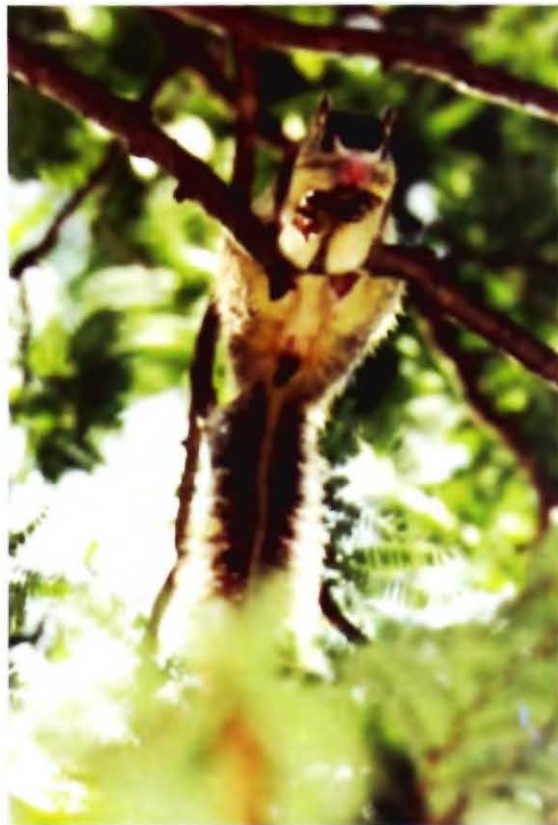
Photo Courtesy : T. P. Bhattacharya, Z.S.I.

Grizzled Giant Squirrel, *Ratufa macroura*

Dorsal surface and tail brownish grey, grizzled with white; underparts, cheeks, patch of neck, arms and legs buffy white; head and body length 29-40 cm, tail 35-40 cm; inhabits riverine forests.

Distribution : India : Eastern slopes of the Western Ghats in Kerala and Tamil Nadu. *Elsewhere* : Sri Lanka.

Conservation status : IWPA : Sch. I, Part I; RDB : EN; CITES : Appendix II; CAMP : DD (Globally).



Grizzled Giant Squirrel
Ratufa macroura

Indian Giant Squirrel, *Ratufa indica*

Upper parts and ears having a mixture of maroon and black, underparts cream or buff; head and body length 30-50 cm, tail 60 cm; endemic to India, inhabits deciduous and evergreen forests.

Distribution : India : Widely distributed in Peninsular India in the south upto 22° N, mainly in the Western Ghats with isolates in the north-east up to Bihar. Reported from Bihar, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, Madhya Pradesh and Gujarat.

Conservation status : IUCN : VU; IWPA : Sch. II, Part II; CITES : Appendix II; CAMP : VU (Nationally), DD (Globally).

ENDEMIC



Indian Giant Squirrel, *Ratufa indica*



Marmots

Besides squirrels, the subfamily Sciurinae includes another rodent group known as marmots. While squirrels are primarily arboreal, the marmots are fossorial in habits and live inside the holes in the ground. To cope up with that habit they are squat bodied with short ears. Two species of marmots belonging to the genus *Marmota* occur in India and both are restricted to the Himalaya.

Long-tailed Marmot, *Marmota caudata*

Body colour yellowish tawny, deep orange or rufous with black back, tail comparatively long as its name implies; head and body length 60 cm and tail 30 cm; occurs in the high



altitude of the Himalaya at elevations 2400-4300 m; inhabits alpine meadows; diet consists of grasses, roots and seeds of various plants; lives in deep burrows in which it hibernates in winter.

Distribution : India : Jammu & Kashmir only (Ladak and Gilgit). *Elsewhere* : Afghanistan, China, Kirgizistan, Tadjikistan and Pakistan.

Conservation status : IUCN : LRnt; CITES : Appendix II, CAMP : VU.

Long-tailed Marmot, *Marmota caudata*

Himalayan Marmot, *Marmota himalayana*

Similar to the Long-tailed Marmot in head and body length (60 cm), but tail very short (13 cm); its body and limb pale tawny, and back black to some extent, face and terminal third of tail dark brown; common marmot of the Himalaya in higher altitude (4300-5500 m); habitat and diet similar to those of the Long-tailed Marmot.

Distribution : India : From Ladak (Jammu & Kashmir), Lahul (Himachal Pradesh) to Sikkim. *Elsewhere* : China, Nepal and Pakistan.

Conservation status : CITES : Appendix III.



Himalayan Marmot, *Marmota himalayana*

Subfamily PETAURISTINAE**FLYING SQUIRRELS**

Genus 6

Species 13

Endemic species 1

The members of this subfamily are called flying squirrels as mentioned earlier. These are categorised under the Large Flying Squirrels and the Small Flying Squirrels according to their size (head and body length). Moreover, the Large Flying Squirrels have an additional flap of skin connecting the two hind limbs together. Seven species of Large Flying Squirrels are found in India, of which one species, the Namdhapa Flying Squirrel is endemic to this country.

Large Flying Squirrels**Red Giant Flying Squirrel,
*Petaurista petaurista***

Bright chestnut or dark red coloured squirrel with buff underparts; head and body length 32-49 cm, tail 38-48 cm; the commonest Large Flying Squirrel of this country; inhabits forests only.

Distribution : India : Peninsular India, Andhra Pradesh, Orissa, Bihar, Madhya Pradesh, Maharashtra, Gujarat, Punjab, Himachal Pradesh, Jammu & Kashmir, Uttar Pradesh, Assam and Nagaland. *Elsewhere* : Afghanistan, Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand and Vietnam.

Conservation status : Not known.

Red Giant Flying Squirrel, *Petaurista petaurista*

**Indian Giant Flying Squirrel, *Petaurista philippensis***

Indian Giant Flying Squirrel, *Petaurista philippensis*

Body coffee-brown to grey, underside pale grey, head and body length 30-45 cm, tail 35-50 cm; occurs in forests only.

Distribution : India : Bihar, West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra, Madhya Pradesh, Rajasthan and Gujarat. *Elsewhere* : China, Indonesia, Myanmar, Sri Lanka, Taiwan and Thailand.

Conservation status : Not known.



Hodgson's Flying Squirrel, *Petaurista magnificus*

Coat deep maroon having a bright yellow line down the middle of the summer coat; underparts rufous, tail black-tipped, body darker than parachute; head and body length 41-49 cm; tail 46-52 cm; occurs in hilly forests.

Distribution : India : Sikkim and West Bengal (Darjeeling). *Elsewhere* : Bhutan, Nepal and Tibet.

Conservation status : IUCN : LRnt.

Gray's Flying Squirrel, *Petaurista nobilis*

Larger and darker than the Hodgson's Flying Squirrel; saddle maroon in colour, usually with a mid-dorsal stripe, under parts salmon pink; shoulder patch and sides of body buff yellow to orange; found in hilly forests.

Distribution : India : Sikkim and West Bengal (Darjeeling). *Elsewhere* : Bhutan and Nepal.

Conservation status : IUCN : LRnt.

Lesser Giant Flying Squirrel, *Petaurista elegans*

Body uniform rufous brown above, underparts rufous; distinctive by its ashy-grey or grey speckled head; head and body length 31.8 cm, tail 37.2 cm; inhabits forests.

Distribution : India : Sikkim, West Bengal and Assam. *Elsewhere* : China, Indonesia, Laos, Malaysia, Myanmar, Nepal and Vietnam.

Conservation status : Not known.

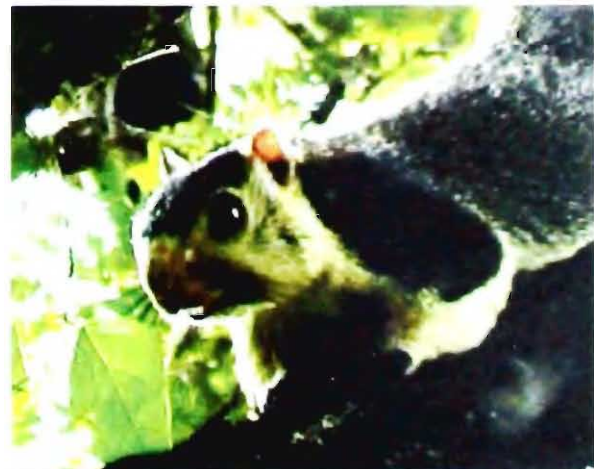
Woolly Flying Squirrel, *Eupetaurus cinereus*

Larger than *Petaurista*, head and body length 50-60 cm, tail 35-50 cm; having long dense woolly fur (providing suitable protection against cold in high altitude), its feet and tail also densely furred; body colour lightish grey throughout, belly much lighter; inhabits coniferous, rhododendron and juniper forests on rocky mountain terrain in high altitude.

Distribution : India : Gilgit (Jammu & Kashmir) and Sikkim. *Elsewhere* : Afghanistan, China and Pakistan.

Conservation status : IUCN : EN; IWPA : Sch. II, Part II; CAMP : LRnt (Nationally), DD (Globally).

ENDEMIC



Woolly Flying Squirrel, *Eupetaurus cinereus*

Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

Namdhapa Flying Squirrel, *Biswamoyopterus biswasi*

Large sized flying squirrel, head and body length 40.5 cm, tail 60.5 cm; upper parts morocco red, grizzled with white, underparts mostly white, blob of pale violet grey on crown; endemic to India; inhabits tropical rain forests in hill slopes.

ENDEMIC



Namdhapa Flying Squirrel, *Biswamoyopterus biswasi*

Distribution : India : Known only from Namdhapa (Arunachal Pradesh).

Conservation status : IUCN : CR; CAMP : CR.

Small Flying Squirrels

In India, Small Flying Squirrels are represented by six species. All these species are found to occur in the Himalaya and the North-eastern hills excepting the Small Travancore Flying Squirrel which is found in southern India.

Hairy-footed Flying Squirrel, *Belomys pearsoni*

A medium sized squirrel, head and body length about 20 cm; fur rufous brown with pale tips on upper surface of the body and fulvous white on under surface; pencil of long chestnut hairs grown from the base of each ear-conch exceeding the ear length makes it distinctive; inhabits dense temperate, broad-leaved forests from 1500-2400 m altitude.

Distribution : India : Eastern part of the Himalaya in Sikkim, West Bengal (Darjeeling part), Assam, Manipur, Nagaland and Mizoram. *Elsewhere* : Bhutan, China, Cambodia, Laos, Myanmar, Taiwan and Vietnam.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).



Particoloured Flying Squirrel, *Hylopetes alboniger*

Black or hoary coloured squirrel with greyish or white underparts and white or light patches in region of shoulder; head and body length 21-27 cm; tail 19-21 cm; inhabits forests at high elevations from 1800 m up to tree-line.



Photo Courtesy : BNHS, Mumbai /
WII, Dehra Dun

Particoloured Flying Squirrel, *Hylopetes alboniger*

Distribution : India : Sikkim, West Bengal (Darjeeling district) and North-eastern States.
Elsewhere : China, Myanmar, Nepal and Vietnam.

Conservation status : IUCN : VU (Nationally), DD (Globally).

Small Kashmir Flying Squirrel, *Hylopetes fimbriatus*

Fur light and buffy brown interspersed with black; head and body length 27 cm, tail 28 cm; habitat similar to that of the Particoloured Flying Squirrel.

Distribution : India : In Kashmir only. *Elsewhere* : Pakistan.

Conservation status : IUCN : LRnt; CAMP : LRnt (Nationally), DD (Globally).

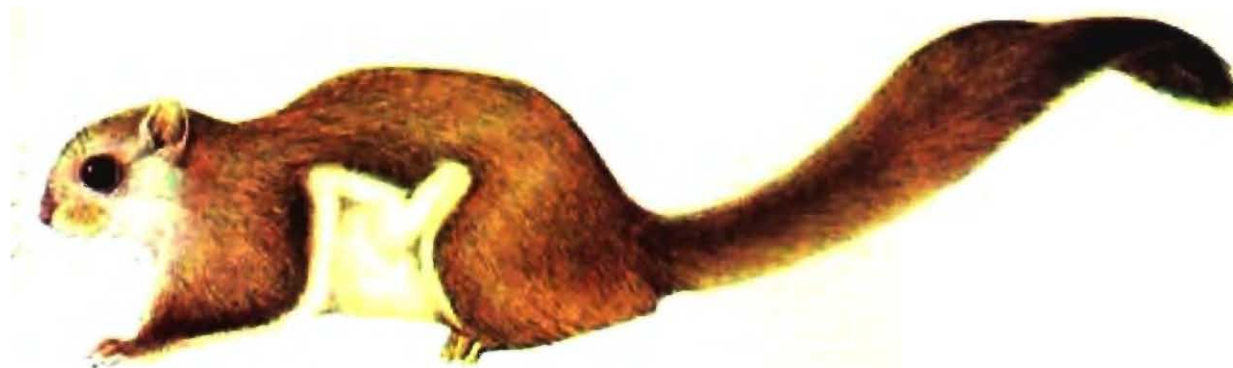


Photo Courtesy : BNHS, Mumbai /
WII, Dehra Dun

Small Kashmir Flying Squirrel, *Hylopetes fimbriatus*

Large Kashmir Flying Squirrel, *Hylopetes baberi*

Similar to the Small Kashmir Flying Squirrel, but its skull and premolars larger; dorsal colour light greyish brown mixed with black; ventral colour whitish; tail brown, with long, black terminal portion; hand and feet black.

Distribution : India : In Kashmir only. *Elsewhere* : Afghanistan.

Conservation status : DD (Nationally & Globally).

Phayre's Flying Squirrel, *Hylopetes phayrei*

Colour brown dorsally, white with yellowish tinge ventrally; tail brown, slightly paler at sides and faintly darker terminally; a whitish patch behind ears.

Distribution : India : Manipur (Ellerman and Morrison-Scott, 1951) but Hoffmann *et al.* (in Wilson and Reeder, 1993) did not include India within the distribution range of this species. *Elsewhere* : China, Laos, Myanmar, Thailand and Vietnam.

Conservation status : Not known.

Small Travancore Flying Squirrel, *Ptenomys fuscicapillus*

Coat reddish brown above, cheeks and sides of belly white, tail feather-shaped, broad and long, bearing a central line of blackish hair; head and body length 19-25 cm, tail 27 cm; inhabits evergreen and deciduous forests.

Distribution : India : Southern Kerala (in Thiruanathapuram and Palakkad districts only). *Elsewhere* : Sri Lanka.

Conservation status : IUPA : Sch. I, Part I; RDB : EN; CAMP : VU (Nationally), DD (Globally).



Small Travancore Flying Squirrel
Ptenomys fuscicapillus

Family MURIDAE

RATS, MICE, VOLES, HAMSTERS, DORMICE, GERBILS, BAMBOO RATS

This is the largest mammalian family in number of species in the globe so also in India. As many as 70 species under 6 subfamilies *viz.* Platacanthomyinae, Rhizomyinae, Cricetinae, Gerbillinae, Avicolinae and Murinae occur in India. It includes dormice, bamboo rats, hamsters, gerbils, rats, voles, and mice.

Murids are found in a variety of habitats. Most of the species are primarily terrestrial but some of them are fossorial, arboreal or semiaquatic. They live in tunnels, crevices, in hollow trees or logs, under logs or in nests built in the surface or bushes or on trees.



Subfamily PLATACANTHOMYINAE

DORMOUSE

Genus	1
Species	1
Endemic species	1

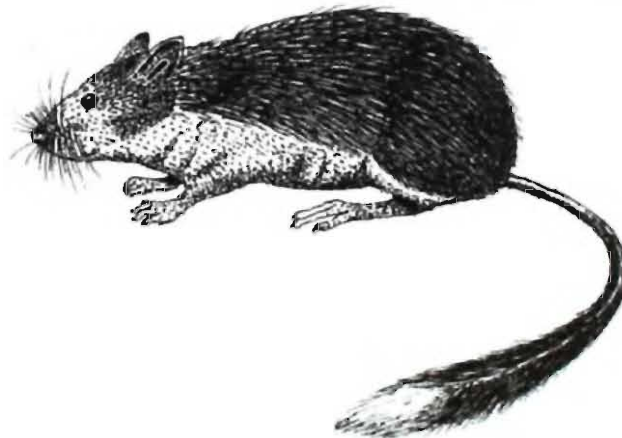
This subfamily includes the Asian species of spiny dormouse and comprises of only two genera. Out of these, only one genus, *Platacanthomys* is distributed in India. This genus is endemic to this country and contains only one species, *Platacanthomys lasiurus*.

The spiny dormouse in India is medium sized, having short spines on their body as its popular name implies and lacks claws in the limb.

Malabar Spiny Dormouse, *Platacanthomys lasiurus*

Rat-like in appearance; body covered with short spines, tail shorter than head and body and fully covered with coarse hairs, becoming thick and bushy at its tip; body reddish brown above and whitish on the undersurface; head and body length 11.8-13.8 cm, tail 7.6-10.4; endemic to India; inhabits moist evergreen forests; arboreal in habit; a pest of pepper, cashewnut, cardamom and jack fruit; also takes fermented palm juice.

ENDEMIC



Malabar Spiny Dormouse, *Platacanthomys lasiurus*

Distribution : India : Confined to south-western Peninsular India in Karnataka and Kerala.

Conservation status : IWPA : Sch. V; CAMP : LRIc.

Subfamily RHIZOMYINAE

BAMBOO RATS

Genus	2
Species	2

This subfamily includes Bamboo Rats which are heavily build, provided with strong claws in the limbs for digging. They prefer hill terrain and are highly fossorial. Accordingly their body is cylindrical, neck indistinct, eyes small or rudimentary, limbs short with large claws and tail short or vestigial. Two species of Bamboo rats are found in India.

Bay Baboo Rat, *Cannomys badius*

A heavily build rat with a short tail; head and body length 16.6-23.1 cm, tail 4.7-9.6 cm, upper surface chestnut or ashy brown with a rusty tinge above, undersurface ashy; body scarcely covered with hairs, ears small remain hidden in fur; nocturnal, highly fossorial; inhabits montane forests; feeds mainly on young shoots and roots of bamboo and cereals.

Distribution : India : West Bengal (Darjeeling district), Assam, Aurnachal Pradesh, Manipur, Nagaland, Mizoram and Meghalaya. *Elsewhere* : Nepal, Myanmar and Thailand.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).



Bay Baboo Rat, *Cannomys badius*

Hoary Bamboo Rat, *Rhizomys pruinosus*

A heavily build rat, head and body length 25.6-35 cm, tail 9.8-12 cm; body dark brown, grizzled with white (hoary coloured) and covered with dense fur; eyes and ears small; sole pads of hind foot granulated; nocturnal and fossorial; inhabits bamboo thickets at high elevation, 1200-3700 m; diets comprise roots and young shoots of bamboo, grass, seeds and fruits.



Hoary Bamboo Rat, *Rhizomys pruinosus*

Distribution : India : Meghalaya, Nagaland and Manipur. *Elsewhere* : Myanmar, Thailand, Malaysia, Vietnam and southern China.

Conservation status : IWPA : Sch. V; CAMP : LRnt (Nationally), DD (Globally).

Subfamily CRICETINAE**HAMSTERS**

Genus 1

Species 2

This subfamily is represented in India by a single genus *Cricetulus* which is Palearctic in distribution with southernmost limit being Jammu & Kashmir. This genus includes hamsters characterised by the presence of cheek pouches, a short tail devoid of terminal tuft and short hind foot. Two species of hamsters occur in India.

Little Grey Hamster, *Cricetulus migratorius*

Grey to sandy brown above, white below, tail mostly white and less than one-third the head and body length; head and body length 9.6 cm, tail 3 cm; body with dense fur and tail with hair; inhabits arid mountain steppe; nocturnal; takes shelter in burrows dug by itself; feeds on buds, young shoots, wild berries and insects.

Distribution : India : Jammu & Kashmir. *Elsewhere* : Pakistan, Afghanistan, Iran, Iraq, Syria, Asia Minor, Israel, Greece, Mongolia, Palestine, Russia and Turkey.

Conservation status : IOWA : Sch. V; CAMP : EN (Nationally), DD (Globally).



Little Grey Hamster, *Cricetulus migratorius*

Ladakh Hamster, *Cricetulus alticola*

Similar to the Little Grey Hamster but undersurface of body light grey; head and body length 8.2-10 cm; tail length 2.9-3.3 cm; habit, habitats and diet similar to those of the Ladakh Hamster; occurs above 3000 m altitude.

Distribution : India : Jammu & Kashmir. *Elsewhere* : Nepal and China.

Conservation status : IOWA : Sch. V; CAMP : VU (Nationally), DD (Globally).

Subfamily GERBILLINAE**GERBILS**

Genus 3

Species 4

The gerbils or antelope rats are characterised by their long hind foot and a long hairy tail, ending in a tuft of hair unlike that of rats whose tails are without any hair. This is an Ethiopian subfamily found in arid and semi-arid region. In India, however, one species has extended its range to non-arid region. Four species of gerbils occur in India.

Little Hairy-footed Gerbil, *Gerbillus gleadowi*

A small gerbil, head and body length 6.7-9 cm, tail 11-14.5 cm; hind foot exceptionally long, more than one-third the length of head and body; soles of hind foot partly hairy and without sole pad; upper parts sandy brown, white below, tail bicoloured, sandy above, white below, with hairy tip; inhabits arid regions; nocturnal and fossorial; diets comprise seeds, vegetables and insects.

Distribution : India : Gujarat, Rajasthan and Punjab. *Elsewhere* : Pakistan.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Baluchistan Gerbil, *Gerbillus nanus*

Small size, head and body length 7.4 cm, tail 10.3 cm; tufted at tip; hind foot long, soles naked; upper parts sandy brown, white below, tail bicoloured, dark above, white below; prefers stony areas, clay flats, thorny scrub and edges of cultivated fields; nocturnal and fossorial; diet comprises of roots, shoots, seeds and insects.

Distribution : India : Rajasthan and Gujarat. *Elsewhere* : Pakistan, Iran, South Arabia, Israel, Egypt and Algeria.

Conservation status ; IWPA : Sch. V; CAMP : LRnt.

Indian Gerbil or Antelope Rat, *Tatera indica*

Large gerbil, head and body length 13-21 cm, tail 13.5-16 cm; hind foot longer, soles naked to the heel, tail clothed with hair and tufted at tip; upper parts sandy brown to reddish brown, undersurface white; tail dark above and below and pale on sides; hind foot white; nocturnal and fossorial; inhabits hedges, cropfields and orchards; a serious crop pests; feeds on grain, seeds of grass, rhizomes, leaves and flowers.

Distribution : India : Throughout the country excepting North-eastern States and Sikkim. *Elsewhere* : Nepal, Pakistan, Afghanistan, Iran, Iraq, Syria and Sri Lanka.

Conservation status ; IWPA : Sch. V; CAMP : LRlnc (Nationally), DD (Globally).

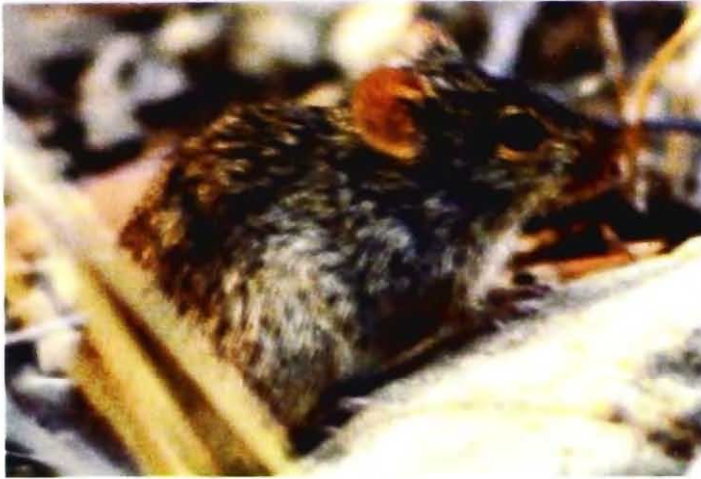


Indian Gerbil or Antelope Rat, *Tatera indica*

Indian Desert Gerbil, *Meriones hurrianae*

Medium sized gerbil, head and body length 11-13.7 cm, tail length 10-12.9 cm; tail covered with hairs and tufted at tip, soles partly hairy; upper parts sandy grey to brownish

Photo Courtesy : Biswajit Roy Chowdhury, The NEWS



Indian Desert Gerbil, *Meriones hurrianae*

grey, underparts pale yellow to dirty white; a black streak above tail; diurnal and fossorial; makes extensive burrow system; feeds on grass seeds, rhizomes, stems and insects.

Distribution : India : Haryana, Punjab, Rajasthan and Gujarat. *Elsewhere* : Pakistan and South-east Afghanistan.

Conservation status : IWPA : Sch. V; CAMP : LR1c (Nationally), DD (Globally).

Subfamily AVICOLINAE

VOLES

Genus	4
Species	11
Endemic species	3

Members of this subfamily comprise of voles and lemmings. But lemmings do not occur within Indian limit. On the other hand, 11 species of voles are found in India, all of which inhabit high altitude of the Himalaya. Out of these, three species, the Mountain Vole, the Royle's Mountain Vole and the Baltistan Mountain Vole are endemic to this country. Voles are fossorial in habit. Accordingly their body is more or less cylindrical with velvety fur, muzzle short, head rounded, ears small, tail length less than the length of head and body.

Royle's Mountain Vole, *Alticola roylei*

ENDEMIC

Body dark brown above, underparts greyish, usually with rusty tinge, tail bicoloured, dark above and pale below; hind foot greyish; head and body length 9.7-11.3 cm, tail 3.2-3.9 cm; endemic to India; found in between 2600-3900 m altitude; diurnal and fossorial; feeds on grass, leaves of alpine herbs, roots, etc.

Distribution : India : Western Himalaya in Ladakh (Jammu & Kashmir), Lahul and Kullu Valley (Himachal Pradesh) and Kumaon (Uttaranchal).

Conservation status : IUCN : LRnt; CAMP : DD (Nationally & Globally).

Baltistan Mountain Vole, *Alticola albicauda*

Upper part pale reddish grey to dark yellowish grey; underparts, upper lip and tail white; head and body length 10.7-10.8 cm; tail 3.2 cm; endemic to India (*vide* Musser and

ENDEMIC

Carleton in Wilson and Reeder, 1993); inhabits steep rocky areas; diurnal and fossorial; diets same as that of the Royle's Mountain Vole.

Distribution : India : Confined to Jammu & Kashmir at 3600 m altitude.

Conservation status : IUCN : LRnt; CAMP : DD (Nationally).

ENDEMIC

Mountain Vole, *Alticola montosa*

Body greyish brown above, silvery grey below, displaying a sharp line of demarcation along the flanks between upper and underparts; head and body length 10.2-10.6 cm, tail 4.2-5.8 cm; tail bicoloured, dusky above, whitish below, having a short pencil of hair at its tip; endemic to India (*vide* Musser and Carleton in Wilson and Reeder, 1993); habit and habitat similar to those of the Royle's Mountain Vole.

Distribution : India : Confined to Jammu & Kashmir.

Conservation status : IUCN : VU.

Ladakh Mountain Vole, *Alticola stoliczkanus*



Photo Courtesy : Otto Pfister

Body bright ferruginous brown above, white below, tail white; head and body length 10 cm, tail 2.5 cm; diurnal and fossorial; habitat and diet similar to those of the Royle's Mountain Vole.

Distribution : India : Jammu & Kashmir (Ladakh). *Elsewhere* : Nepal, Tibet and China.

Conservation status : CAMP : DD (Nationally & Globally).

Ladakh Mountain Vole, *Alticola stoliczkanus*

Thomas's Mountain Vole, *Alticola stracheyi*

Similar to the Ladakh Mountain Vole, but upper part pale yellowish brown, inconspicuously lined with longer blackish hairs; head and body length 8.8-12 cm, tail 1.8-3 cm; habit, habitat and diet as in other voles.

Distribution : India : In the Himalaya from Jammu & Kashmir to Sikkim. *Elsewhere* : Nepal and China.

Conservation status : Not known.

Silvery Mountain Vole, *Alticola argentatus*

Upper parts light greyish brown with slight rufous tinge, greyish white below without any sharp line of demarcation along the flanks; head and body length 9.1-11.5 cm, tail 3.1-5.4 cm; tail bicoloured, brown above, dirty white below; habit, habitat and diet as in other voles.

Distribution : India : Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Afghanistan, China, Nepal, Pakistan and Tibet.

Conservation status : Not known.



Photo Courtesy : Otto Pfister

Silvery Mountain Vole, *Alticola argentatus*

Pere David's Vole, *Eothenomys melanogaster*

Dark and thick furred vole; body clove brown above with golden hair tips, pale below, tail and hind foot dark; diurnal and fossorial; inhabits wooded jungles and grassy meadows; diet as in other voles.

Distribution : India : Arunachal Pradesh. *Elsewhere* : North Myanmar.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

True's Vole, *Hyperacrius fertilis*

Body dark brown above, dull ochraceous below; head and body length 9.1-11.1 cm; tail 1.9-3.8 cm, bicoloured, dark above, pale below; hind foot sepia in colour; diurnal and fossorial; inhabits subalpine scrub zone and apline meadows above tree line at elevation 2450-3600 m; feeds on succulent roots and rhizomes.

Distribution : India : Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Pakistan.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Murree's Vole, *Hyperacrius wynnei*

Body yellowish brown or blackish brown above and greyish or brownish below; head and body length 8.4-9.2 cm; tail indistinctly bicoloured, 3.2-3.5 cm; hind foot dark grey; diurnal and fossorial; inhabits moist temperate forests and grassy slopes at 1850-3050 m altitude; feeds primarily on roots, rhizomes and tubers.

Distribution : India : Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Pakistan.

Conservation status : IWPA : Sch. V; CAMP : VU (Nationally), DD (Globally).

Blyth's Vole, *Microtus leucurus*

Body yellowish brown above and greyish white below; head and body length 9.8-12.8 cm; tail short, hairy, 2.6-3.5 cm long and small ears; diurnal and fossorial; inhabits mountainous region at very high altitude at 4500 m.

Some workers included this species under the genus *Pitymys* (Ellerman and Morrison-Scott, 1951).

Distribution : India : Ladakh (Jammu & Kashmir) and Kangra Valley (Himachal Pradesh). *Elsewhere* : Nepal and South-west China.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).



Blyth's Vole, *Microtus leucurus*

Sikkim Vole, *Microtus sikimensis*

Body slaty to reddish brown above, greyish white below; head and body length 9.7-11.9 cm, tail 3.8-5.2 cm; ear slightly larger than the Blyth's Vole; diurnal and fossorial; inhabits meadows, rhododendron and coniferous forests at 2100-3700 m altitude; feeds primarily on vegetable matter.

Some workers included this species under the genus *Pitymys* (Ellerman and Morrison-Scott, 1951).

Distribution : India : Sikkim and West Bengal (Darjeeling district). *Elsewhere* : Nepal.

Conservation status : Sch. V; CAMP : LR1c (Nationally), DD (Globally).

Subfamily MURINAE

RATS AND MICE

Genus	17
Species	50
Endemic species	10

This is the largest subfamily of the family Muridae comprising 50 species within Indian limit and includes rats and mice. These rodents possess naked scaly tails which are sometimes sparsely clothed with hair. Members of this family are well adapted to live in diversified habitats in and around human habitations, shops, godowns, crop fields, orchards, bushes, grasslands, forests and highlands. Some are burrowers and excavate tunnels in muddy, sandy, rocky and gravelly habitats while others are semi-arboreal or arboreal and build nests in trees, bushes, roofs of houses and the like. The following are the murinids occurring in India.



Genus *Apodemus* Old World Wood Mice

It is a Palaearctic genus whose distribution range has extended south up to the Himalaya within Indian limit. In India this genus is represented by three species.

Kashmir Wood Mouse, *Apodemus rusiges*

ENDEMIC

Body yellowish to dark brown above, greyish white below, no clear mid-dorsal stripe; fur soft, head and body length 8.3-10.7 cm, tail 9.1-12 cm, bicoloured, dark above paler below; teats 3 pair; endemic to India; inhabits scrub, meadows and, arid, rocky and subalpine habitats; nocturnal and fossorial; feeds primarily on plant material, occasionally insects. Some workers treat this mouse as a subspecies of *A. sylvaticus* (see Agarwal, 2000).

Distribution : India : Jammu & Kashmir, Himachal Pradesh and Uttaranchal.

Conservation status : Not known.

Yellow-naked Wood Mouse, *Apodemus wardi*

Similar to the Kashmir Wood Mouse but larger in size; head and body length 9.2-11.1 cm and tail 9-12.4 cm; teats 3 pair; habits and habitat similar to those of the Kashmir Wood Mouse.

Distribution : India : Jammu & Kashmir, Himachal Pradesh and Uttaranchal. *Elsewhere* : Nepal, Pakistan, Afghanistan and Iran.

Conservation status : Not known.

Hardwicke's Wood Mouse, *Apodemus draco*

Similar to the Kashmir Wood Mouse, but ears darker and teats 4 pairs.

Distribution : India : Arunachal Pradesh. *Elsewhere* : China and Myanmar.

Conservation status : Not known.

Genus *Micromys* Old World Harvest Mice

It is also a Palaearctic genus and includes only one species as follows, distributional range of which has extended south to North-east India.

Harvest Mouse, *Micromys minutus*

A very small mouse and soft-furred; body greyish brown above, silvery grey below; head and body length 6 cm; tail prehensile, bicoloured, dark above, pale below, longer than head and body length, 9 cm long; diurnal; inhabits tall trees and bamboo thickets; builds nests in trees; feeds on seeds, fruits, buds and insects.

Distribution : India : Assam, Nagaland and Meghalaya. *Elsewhere* : Myanmar, Vietnam and China.

Conservation status : IUCN : LRnt; IWPA : Sch. V; CAMP : VU (Nationally), DD (Globally).

Genus *Chiropodomys* Pencil-tailed Tree Mice

This genus includes specialised arboreal mice and is represented by a single species in India.

Pencil-tailed Tree Mice, *Chiropodomys gliroides*

Body pale chestnut or reddish brown above, white below; cheeks buffy; pelage thick, soft, dense and uniform; head and body length 8.6-10.3 cm; tail 11.6-14.8 cm, unicoloured, greyish to dark brown, hairy and tufted terminally; nocturnal and arboreal; inhabits primary and secondary forests usually where bamboo clumps common; nests in bamboo hollows; feeds primarily on vegetable matters.

Distribution : India : North-east India. *Elsewhere* : Myanmar, Thailand, Laos, Vietnam, southern China, Malaysia and Indonesia.

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : VU (Nationally), DD (Globally).



Pencil-tailed Tree Mice, *Chiropodomys gliroides*

Genus *Vandeleuria* Long-tailed Climbing Mice

Members of this genus comprise of small tree mice whose first and fifth digits of hands and feet have flat nails and the remaining digits are clawed. One species of this genus occurs in India.

Indian Long-tailed Tree Mouse, *Vandeleuria oleracea*

Dull to rusty brown above, white below, head and body length 5.3-9.5 cm; fur soft and silky; tail much longer, about one and a half time the length of head and body and non-tufted; nocturnal and arboreal; builds nest in trees preferably in palm, canes and bamboo thickets; feeds primarily on buds, shoots and fruits and occasionally insects.

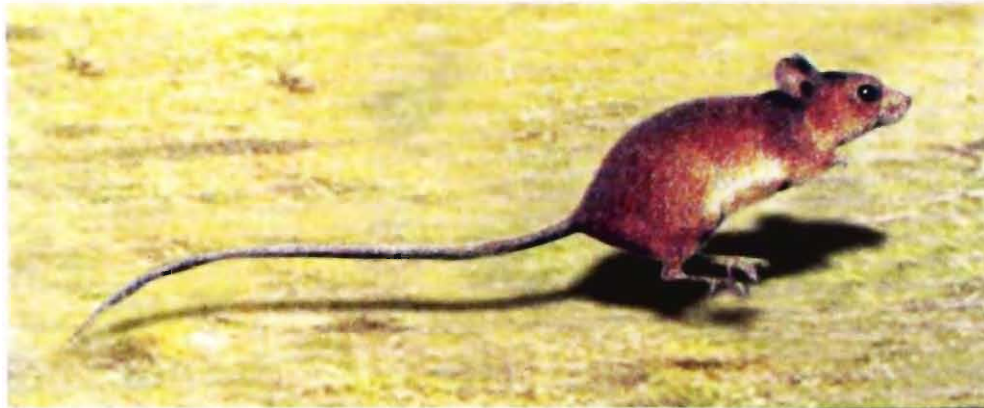


Photo Courtesy : Gujarat Forest Dept.

Indian Long-tailed Tree Mouse, *Vandeleuria oleracea*

Distribution : *India* : Almost throughout the country in suitable habitats. *Elsewhere* : Nepal, Sri Lanka, Myanmar to Vietnam.

Conservation status : IWPA : Sch. V, CAMP : LRlc (Nationally), DD (Globally).

Genus *Mus* Mice

Members of this genus include the common House Mouse. They have soft, harsh or spiny fur and their tails are covered by fine hairs but, appear to be naked. Ten species of *Mus* are known so far from India.

House Mouse, *Mus musculus*

Body sandy brown to dark brown above, white to ochraceous brown below; head and body length 5.5-9.4 cm; tail faintly bicoloured, dark above and white below, 6.4-9.9 cm long; fur soft; nocturnal; occurs in and around human habitation including houses, shops, godowns, gardens and fields; feeds primarily on vegetable matters, occasionally insects.

Distribution : *India* : Almost throughout the country. *Elsewhere* : occurs almost throughout the world through its close association with human beings.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).



Photo Courtesy : Biswajit Roy Chowdhury, The NEWS

House Mouse, *Mus musculus*

Common Indian Field Mouse, *Mus booduga*

Body colour variable, light sandy, greyish, dark reddish or rusty brown above, white below; head and body length 5.2-8.7 cm; tail 5.1-7.2 cm, bicoloured, dark above and paler below; fur soft; nocturnal and fossorial; inhabits irrigated fields and thorn scrub on the edges of cultivation; feeds primarily on vegetable matter, occasionally insects.

Distribution : India : Throughout the country. *Elsewhere* : Bangladesh, Myanmar, Nepal, Pakistan and Sri Lanka.

Conservation status : IWPA : Sch. V; CAMP : LRIc. (Nationally), DD (Globally).

Photo Courtesy : Gujarat Forest Deptt.



Common Indian Field Mouse, *Mus booduga*

Pygmy Field Mouse, *Mus terricolor*

Similar to the Common Indian Field Mouse, only the size smaller as its name implies; body grey or greyish white below.

Distribution : India : West Bengal, Bihar, Orissa, Andhra Pradesh, Karnataka, Maharashtra, Gujarat, Haryana and Punjab. *Elsewhere* : Nepal, Pakistan and Indonesia.

Conservation status : Not known.

Fawn-coloured Mouse, *Mus cervicolor*

Body dark brown above, greyish white below; head and body length 6-9.5 cm; tail shorter than this length, 5.6-7.6 cm, bicoloured, dark above, pale below; soft fur; nocturnal and fossorial; inhabits riverine scrubs, cultivated fields and forests; feeds on vegetable matter and insects.

Distribution : India : Jammu & Kashmir, Uttaranchal, Sikkim, Arunachal Pradesh, Assam, Manipur, Nagaland, Meghalaya, West Bengal, Madhya Pradesh, Karnataka, Gujarat, Rajasthan and Andaman and Nicobar islands. *Elsewhere* : Pakistan, Nepal, Bhutan, Myanmar, Thailand, Laos, Vietnam and Indonesia.

Conservation status : IWPA : Sch. V; CAMP : LRIc (Nationally), DD (Globally).



Fawn-coloured Mouse, *Mus cervicolor*

Ryley's Spiny Mouse, *Mus cookii*

Similar to the Fawn-coloured Mouse, but larger in size, head and body length 7-10 cm; fur bristle like; body light brown above, grey below; tail bicoloured, dark above and pale below, generally smaller than head and body length, 6-9.6 cm long; inhabits conifer and broad-leaved forests in grassy habitats mostly in mountainous region, occasionally in the vicinity of cultivated fields.

Distribution : India : Arunachal Pradesh, Assam, Manipur, Nagaland, Meghalaya, West Bengal, Maharashtra, Karnataka, Kerala and Tamil Nadu. *Elsewhere* : Nepal, Myanmar, China, Thailand, Laos and Vietnam.

Conservation status : IWPA : Sch. V, CAMP : LRnt (Nationally), DD (Globally).

Bonhote's Mouse, *Mus famulus*

Body reddish to chocolate brown above, chestnut with grey bases below having a sharp line of demarcation along the flanks; head and body length 7.9-9.1 cm; tail shorter

ENDEMIC



Bonhote's Mouse, *Mus famulus*

than that length, 7.9-8.3 cm, unicoloured, dark; soft fur; endemic to India; inhabits evergreen forests; nocturnal and fossorial.

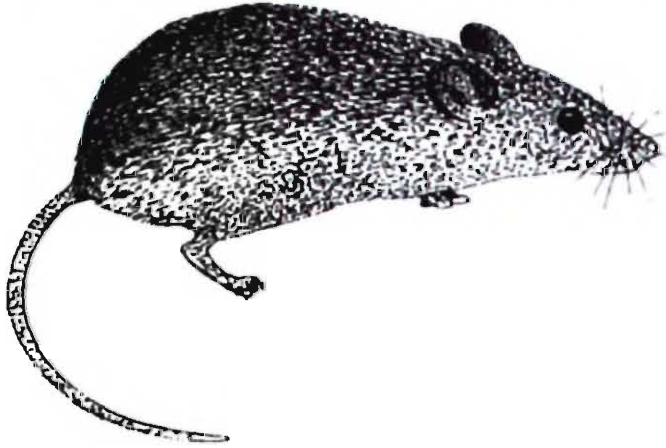
Distribution : India : Reported only from the Nilgiri Hills, Tamil Nadu.

Conservation status : IUCN : EN; IWPA : Sch. V; CAMP : EN.

Indian Brown Spiny Mouse, *Mus platythrix*

ENDEMIC

Body dusky to dark brown above, white to greyish white below; head and body length 7.7-12.3 cm; tail shorter than this length, 5.1-8.1 cm, bicoloured, dark above and pale below; fur spiny; endemic to India; nocturnal and fossorial; found in sandy, rocky and gravelly habitats; diet omnivorous.



Indian Brown Spiny Mouse, *Mus platythrix*

Distribution : India : Bihar, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Maharashtra, Madhya Pradesh, Gujarat, Rajasthan, Punjab and Uttar Pradesh.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Wroughton's Small Spiny Mouse, *Mus phillipsi*

Body brown to buff above and white below; head and body length 6.2-8 cm; tail shorter than this length, 5-6.2 cm, bicoloured, dark above, pale below; fur spiny; occurs only in Nepal outside Indian limit (Agrawal, 2000); nocturnal and fossorial; collected from rocky habitats.

Distribution : India : Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Karnataka, Rajasthan and Gujarat. *Elsewhere* : Nepal.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Elliot's Spiny Mouse, *Mus saxicola*

Body pale sandy to dark greyish brown above, white to dirty white below; head and body length 7.1-11.2 cm, tail shorter than this length, 5.3-9.6 cm; fur soft or spiny; habit and habitat similar to those of the Indian Brown Spiny Mouse.

Distribution : India : Throughout the country, the eastern limit being West Bengal. *Elsewhere* : Pakistan and Nepal.

Conservation status : IWPA : Sch V; CAMP : LRlc (Nationally), DD (Globally).

Sikkim Mouse, *Mus pahari*

Body greyish to dark brown above, light grey below, head and body length 7.5-9.9 cm; tail slightly longer than this length, 8.5-10 cm, bicoloured, dark grey above, pale below; nocturnal; inhabits evergreen forests in hilly areas.



Distribution : India : Sikkim, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland and Meghalaya. *Elsewhere* : Myanmar, Bhutan, China, Laos, Thailand and Vietnam.

Conservation status : IWPA : Sch. V; DD (Nationally & Globally).

Genus *Diomys* Crump's Mouse

This genus includes only one species, *Diomys crumpi* popularly called the Crump's Mouse or the Manipur Mouse. It occurs in India. Though it is popularly called mouse its prime characteristic features, such as, proodont incisors (i.e., incisors project forward) and condylobasal length exceeding occipitonasal length are normally found in the Bandicoot Rats, *Nesokia* and *Bandicota*.

Manipur Mouse or Crump's Mouse, *Diomys crumpi*

Body brownish grey above, greyish white below, head and body length 10.2-13.5 cm; tail little longer than this length on average, bicoloured, deep brown above, greyish below; ear relatively large; fur thick and soft, tail scantily haired; inhabits hilly terrain.

Distribution : India : Bihar (Paresnath hills) and Manipur. *Elsewhere* : Nepal and Myanmar.

Conservation status : IUCN : LRnt; IWPA : Sch. V; CAMP : EN (Nationally), DD (Globally).

Genus *Bandicota* Bandicoot Rats

These are robust and specialised fossorial rats and represented by two species in India.



Lesser Bandicoot Rat, *Bandicota bengalensis*

Also known as the Indian Mole Rat; body greyish brown to blackish above, occasionally with a reddish hue, light to dark grey below; size robust 13.2-23.7 cm; tail shorter than this length, 9.9-20 cm, dark and unicoloured; fur short and harsh; nocturnal and fossorial; inhabits extensive burrow system in cultivated fields and in and around godowns; one of the most serious crop pests in India and hoards large quantity of grains in its burrow.

Distribution : *India* : Almost throughout the country. *Elsewhere* : Sri Lanka, Pakistan, Nepal, Myanmar, Indonesia, Cambodia, Laos and Vietnam.



Photo Courtesy : Rati Ram, Z.S.I.

Lesser Bandicoot Rat
Bandicota bengalensis

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Greater Bandicoot Rat, *Bandicota indica*

Large and heavily build rat, body blackish brown above, grey below; head and body length 24.5-30.5 cm; tail subequal to this length, 24.5-31.5 cm; dark and unicoloured; fur harsh (spiny in some cases); nocturnal and fossorial; inhabits self constructed burrow system in fields and residential complexes of rural and urban areas; feeds on grains, tubers, corns, roots, grasses, molluscs, crabs and insects.

Distribution : *India* : Almost throughout India. *Elsewhere* : Sri Lanka, Pakistan, Nepal, Bangladesh, Myanmar, Thailand, Vietnam, Laos, China, Malaysia and Indonesia.

Conservation status : IWPA : Sch. V; CAMP : LRnt (Nationally), DD (Globally).



Photo Courtesy : Gujarat Forest Deptt.

Greater Bandicoot Rat, *Bandicota indica*

Genus *Nesokia* Short-tailed Bandicoot Rat

It is represented by a single species in India.



Short-tailed Bandicoot Rat, *Nesokia indica*

A heavily build rat, reddish to slaty brown above, white below, head and body length, 14.5-17.7 cm; tail much shorter than this length (as its popular name implies), 8.4-10.5 cm, dark and unicoloured; fur short and harsh in summer and soft in winter; nocturnal and fossorial; inhabits cultivated fields, fruit orchards and natural grasslands; makes burrows usually in soft, moist soil and bunds; feeds on young shoots, roots, grains, fruits and grasses.

Distribution : India : Rajasthan, Punjab, Haryana, Delhi, Uttar Pradesh, Bihar and West Bengal. *Elsewhere* : Nepal, Bangladesh, Pakistan, Afghanistan, Iran and West to Egypt.

Conservation status : IOWA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).



Short-tailed Bandicoot Rat, *Nesokia indica*

Genus *Golunda* Indian Bush Rat

It is a thickset heavy rodent and vole-like in appearance. This genus includes only a single species which also occurs in India.

Indian Bush Rat, *Golunda ellioti*

Body greyish brown to blackish above, white to bluish grey below; head and body length 10.2-17.0 cm; tail shorter than that length, 8.6-13.1 cm, distinctly bicoloured, dark brown above, pale below; fur thick; inhabits forests, bushes, orchards and near cultivation; diurnal; feeds on succulent vegetable matter, young shoots, berries and seeds.

Distribution : India : Throughout the country in suitable habitats. *Elsewhere* : Pakistan, Nepal, Sri Lanka and Iran.

Conservation status : IOWA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Genus *Rattus* Rats

This is one of the largest genus in mammals in number of species. In India 11 species have been reported so far, of which four species, namely, the Miller's Nicobar Rat, the Zelebor's Nicobar Rat, the Miller's Andaman Rat and the Ranjini's Field Rat are endemic to this country.

Common House Rat, *Rattus rattus*

Body having various shades of brown above, venter greyish buff in indoor forms and white or creamy with a medial streak of grey or irregular grey patches in outdoor forms; head and body length 11.6-20.3 cm; tail longer than this length, 15.9-25.6 cm and unicoloured; fur short and harsh; nocturnal and primarily arboreal; inhabits diversified habitats, in houses, cultivated fields, secondary forests in hilly and plain areas; a serious pest of crops and seed grains, also feeds on insects.

Distribution : India : Almost throughout the country. *Elsewhere* : Cosmopolitan, introduced world-wide in tropics and temperate zones.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Common House Rat, *Rattus rattus*



Himalayan Rat, *Rattus nitidus*

Body dusky brown above and silvery to dark grey below at times with a rusty tinge; head and body length 14.9-18.8 cm, tail may be longer or shorter, 13.3-21 cm, unicoloured, dark; fur soft; arboreal; inhabits montanae forests and near human dwelling at 685-2740 m altitude.

Distribution : India : Uttaranchal, West Bengal, Sikkim, Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya and Tripura. *Elsewhere* : Bangladesh, Myanmar, Nepal, Bhutan, China, Laos, Thailand, Vietnam, Philippines and New Guinea.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Brown Rat, *Rattus norvegicus*

Body dark brown above, grey below, large in size, head and body length 20.5-25 cm; tail shorter than that length, 18.3-21.3 cm; obscurely bicoloured; small ears; nocturnal; inhabits godowns and nearby areas.

Distribution : India : Almost throughout the country. *Elsewhere* : A Palaearctic species; now distributed throughout greater part of the world due to accidental transportation by human agency.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Short-tailed Turkestan Rat, *Rattus vicerex*

Body brown to greyish brown above, white below; head and body length 15-20.6 cm; tail slightly shorter than that length, 13.2-18.1 cm, distinctly bicoloured, dark above, white below; fur generally soft; nocturnal; usually lives in houses.

Distribution : India : Jammu & Kashmir and Himachal Pradesh. *Elsewhere* : Pakistan.

Conservation status : Not known.



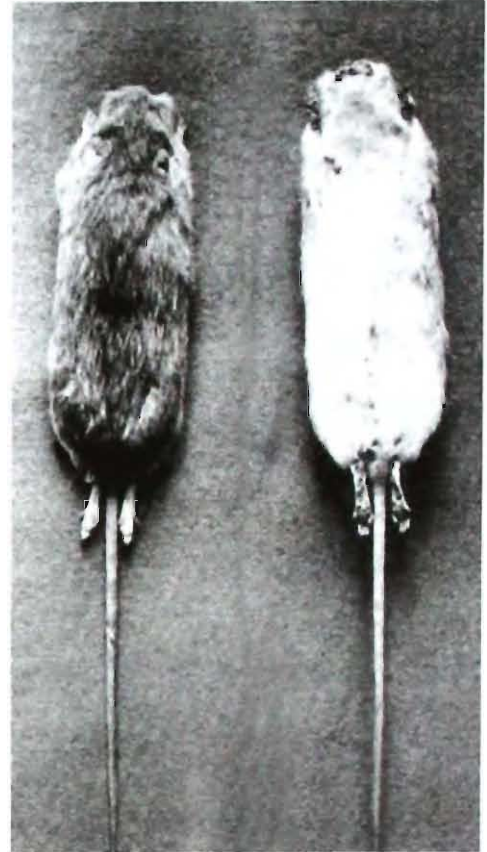
Turkestan Rat, *Rattus turkestanicus*

Body brown to sandy brown above and white below in some population; in others rufous to dark brown above and white or greyish white below; head and body length 13.9-21.7 cm; tail longer than that length, 16-23 cm, usually bicoloured, dark above and white below and occasionally unicoloured; fur usually soft, sometimes stiffer; inhabits coniferous forests, barren rocky mountains, cultivated fields and in and around human habitation at high altitudes 1200-4250 m; feeds primarily on vegetable matter, occasionally insects.

Distribution : India : Jammu & Kashmir, Himachal Pradesh, Uttarnahcal, Sikkim and West Bengal (Darjeeling district). *Elsewhere* : Pakistan, Nepal, Afghanistan, China, Iran and Kirghizia.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Turkestan Rat, *Rattus turkestanicus*



Sikkim Rat, *Rattus sikkimensis*

Similar to the Common House Rat in appearance; its longer black hair on the mid-dorsal line of the body and pure white underparts make it distinctive; head and body length 14-19 cm; tail longer, 15.6-23.7 cm; habits and habitat similar to those of the Common House Rat.

Distribution : India : Sikkim, West Bengal (Darjeeling district), Arunachal Pradesh, Manipur, Nagaland and Meghalaya. *Elsewhere* : Bhutan, Nepal, Myanmar, Thailand, China, Laos, Vietnam, Cambodia, Hong Kong.

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : DD (Nationally & Globally)

Temminck's Rat, *Rattus tanezumi*

Larger species, underparts dusky; head and body length 16.2-18.5 cm; tail larger than this length, 19.5-23.5 cm long.

Distribution : India : Arunachal Pradesh, Manipur, Assam, West Bengal, Sikkim, Andhra Pradesh, Karnataka, Kerala and Andaman and Nicobar islands. *Elsewhere* : Nepal, Bhutan, Afghanistan, Cambodia, China, Japan, Korea, Laos, Malaysia, Molluccas, Micronesia Islands of Eniwetok, New Guinea, Taiwan and Vietnam.

Conservation status : Not known.

The following four species of *Rattus* are endemic to India, of which three are confined to Andaman and Nicobar islands and the remaining one is found in Kerala.

Miller's Nicobar Rat, *Rattus burrus*

ENDEMIC

Body having a fine grizzle of dark brown or russet above, light buff or creamy below; large, head and body length 21.5 cm; tail subequal to that length, 21.5 cm, unicoloured and uniformly dark brown; hind foot long; fur soft; endemic to India; habits not known.

Distribution : India : Reported only from the Trinket island, Nicobar.

Conservation status : IUCN : VU.

Zelebor's Nicobar Rat, *Rattus palmarum*

ENDEMIC

Body dark brown above, white below; large, head and body length 27.5 cm; tail shorter, 21.5 cm, unicoloured, wholly dark; hind foot long, fur harsh and spinous; endemic to India; arboreal; inhabits crown of palm trees, leaps from tree to tree (Miller, 1902).

Distribution : India : Reported from Nicobar islands (probably Great Nicobar).

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : VU.

Miller's Long-footed Rat, *Rattus stoicus*

ENDEMIC

Body having a coarse grizzle of dark brown and ochraceous buff on upper surface and grey below, large and heavily build, head and body length 24.9 cm; tail shorter, 19.3 cm, faintly bicoloured; hind foot long, greyish brown; fur harsh and spinous; endemic to India; inhabits forests.

Distribution : India : Confined to Andaman islands (South Andaman, Little Andaman and Henry Lawrance islands).

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Ranjini's Field Rat, *Rattus ranjiniae*

ENDEMIC

Body bistre above and darker on posterior quarter, dirty white below; large in size, head and body length 16.2-26.1 cm; tail equal or shorter than that length, 15.7-23.2 cm, unicoloured; hind foot long, fur long, having soft spines; endemic to India, collected from rice field.

Distribution : India : Found in Kerala.

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : VU (Nationally), DD (Globally).



Genus *Millardia* Asian Soft-furred Rats

In external appearance this genus resembles *Rattus*, but its toes are shortened, the fifth one scarcely reaches the fourth and its tail is usually subequal to head and body length. Three species of *Millardia* occur in India, of which one species, the Large Metad is endemic to this country.

Soft-furred Metad, *Millardia meltada*

Body grey to dark brown above, grey to greyish white below; head and body length 11.5-15.4 cm; tail shorter than that length, 9.2-13.1 cm, bicoloured, dark above and pale below; nocturnal and fossorial; inhabits irrigated crop fields and grasslands, also in gravelly soil.

Distribution : India : Throughout the country except North-east. *Elsewhere* : Nepal, Pakistan and Sri Lanka.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Sand-coloured Metad, *Millardia gleadowi*

Body sandy brown above, white below, a fulvous patch present on throat; head and body length 7.7-9.3 cm; tail equal to or shorter than this length, 6.7-9.3 cm, usually bicoloured, dark above, white below, occasionally unicoloured, pale; inhabits dry sandy and rocky areas; nocturnal; primarily graminivorous, also feeds on buds and tender shoots.

Distribution : India : Rajasthan and Gujarat. *Elsewhere* : Afghanistan and Pakistan.

Conservation status : IWPA : Sch. V; LRlc (Nationally), DD (Globally).

Large Metad, *Millardia kondana*

Body dark brown above, greyish white below; head and body length 16.8-20 cm; tail shorter than this length, 11.5-18.6 cm, faintly bicoloured, dark above, greyish below; endemic to India; nocturnal; inhabits burrows on a plateau at 1270 altitude having bushes and some trees.

Distribution : India : Known only from its type locality, Singarh (Pune, Maharashtra).

Conservation status : IUCN : EN; IWPA : Sch. V; CAMP : VU.



Genus *Cremnomys* Soft-furred Rats

Rats of this genus are also soft-furred, but their tails are longer than their head and body and their fifth toes of hind feet long. Three species of *Cremnomys* are known from India, of which two species, the Cutch Rock Rat and the Large Rock Rat are endemic to India.

Cutch Rock Rat, *Cremnomys cutchicus*

Body dull grey to brown above, white below, sometimes mixed with grey; head and body length 10.4-12.1 cm; tail longer, 13.2-15.6 cm, unicoloured, dark or indistinctly bicoloured; fur soft; endemic to India; prefers rocky habitat with sparse vegetation; diet primarily plant material, occasionally insects.

Distribution : India : Gujarat, Rajasthan, Karnataka, Tamil Nadu, Andhra Pradesh and Bihar.

Conservation status : IWPA : Sch. V; CAMP : LRlc.

Large Rock Rat, *Cremnomys elvira*

Body brownish grey above, greyish white below; head and body length 12.6-14.9 cm; tail longer, 18-19.6 cm, faintly bicoloured, dark above, pale below; endemic to India; habits and habitat not known.

Distribution : India : Known only from the type locality in Tamil Nadu (Kurambapatti, Salem district).

Conservation status : IUCN : VU; IWPA : Sch. V; CAMP : VU.

Blanford's Rat, *Cremnomys blanfordi*

Body grey to reddish brown above, white below; head and body length 15.1-18.2 cm; tail longer, 18.5-20.8 cm, bicoloured, wholly dark proximally and wholly white distally; lives in rocks, boulders and caves in scrub jungle and dry deciduous forests; nocturnal; diet primarily plant material and occasionally insects.

Distribution : India : West Bengal, Bihar, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Goa, Karnataka and Madhya Pradesh. *Elsewhere* : Sri Lanka.

Conservation status : IWPA : Sch. V; CAMP : LRnt (Nationally), DD (Globally).

ENDEMIC

ENDEMIC



Genus *Berylmys* Wood Rats

This genus is similar to *Rattus* but externally distinctive in having dense, crisp, iron grey fur. Three species of *Berylmys* occur in India.

Bower's Rat, *Berylmys bowersi*

Body large-sized, dark brown to brownish grey above, white below; head and body length 23.6-28.5 cm; tail slightly longer, 24.9-29.2 cm, brown in proximal part and wholly white in distal one-fifth; nocturnal and fossorial; usually inhabits primary forests and highlands above 600 m, also in cultivated fields.

Distribution : India : Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland and Meghalaya. *Elsewhere* : Myanmar, China, Vietnam, Malayan Peninsula, Indonesia, Laos and Thailand.

Conservation status : IWPA : Sch. V; CAMP : EN (Nationally), DD (Globally).

Mackenzie's Rat, *Berylmys mackenziei*

Body iron-grey to dark grey above, white below; head and body length 16-22 cm; tail 15-25.4 cm, brown in proximal part and white in distal one-third to one-half; inhabits montane forests at 1000-2000 m altitude.

Distribution : India : Assam, Manipur, Nagaland and Meghalaya. *Elsewhere* : Myanmar, China, Malaysia, Indonesia, Laos, Thailand and Vietnam.

Conservation status : IWPA : Sch. V; CAMP : LRlc (Nationally), DD (Globally).

Manipur Rat, *Berylmys manipulus*

Body having dense crisp, iron grey pelage above, white below; head and body length 13.5-18 cm; tail equal or longer than that length, 14-18.7 cm, proximal part brown and distal one-third white; nocturnal and fossorial; usually inhabits oak scrub, evergreen forests and riverine meadows at 80-1650 m altitude; feeds on plant material, insects and earthworms.

Distribution : India : Assam, Manipur and Nagaland. *Elsewhere* : Myanmar.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Genus *Leopoldamys* Long-tailed Giant Rats

This genus can be externally differentiated from *Rattus* by its larger body, much longer tail and, shorter and thinner fur. In India, it is represented by single species, as follows.

Edward's Rat, *Leopoldamys edwardsi*

Body large sized, brown above, slightly darker in the middle, white below; head and body length 21-25.8 cm; tail much longer than that length, 26.4-31.5 cm, bicoloured, dark brown above, greyish to white below, fur short and spiny; inhabits montane forests.

Distribution : India : West Bengal (Darjeeling district), Sikkim, Arunachal Pradesh, Assam, Nagaland and Meghalaya. *Elsewhere* : Myanmar, China, Vietnam, Thailand, Malaysia and Indonesia.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Genus *Niviventer* White-bellied Rats

Members of this genus include soft, densely furred rats which inhabit high altitude. In India, *Niviventer* is represented by six species, all of which are richly coloured above and whitish or paler below.

Little Himalayan Rat, *Niviventer eha*

Body reddish brown above, grey below sharply contrasted with back; fur dense and spineless; face with a dark ring around eyes; head and body length 14-15.5 cm; tail considerably long, 21.5-24 cm, bicoloured, dark above, whitish below, moderately hairy and tends to be tufted at the tip; inhabits coniferous and rhododendron forests and bamboo thickets at high altitude from 2250-3700 m; diet primarily insects, also vegetable matter.

Distribution : India : In the Himalaya in Sikkim and West Bengal (Darjeeling district). *Elsewhere* : In the mountaneous region of Nepal, Myanmar and China.

Conservation status : IWPA : Sch. V; CAMP : VU (Nationally), DD (Globally).

Himalayan Chestnut Rat, *Niviventer fulvescens*

Body fulvous to reddish brown above, white below, fur spiny and soft; head and body length 11.2-16.4 cm; tail considerably longer, 13.7-22.3 cm, bicoloured, dark above, pale below, also occasionally unicoloured; fur spiny or soft; nocturnal and fossorial; inhabits evergreen forests, shrubs, rocks near water; diets primarily plant material, occasionally insects.

Distribution : India : In the Himalaya in Himachal Pradesh, Uttaranchal, West Bengal (Darjeeling district), Sikkim, Arunachal Pradesh, Assam, Manipur and Meghalaya.



Himalayan Chestnut Rat, *Niviventer fulvescens*



Elsewhere : A montane rat found in Bangladesh, Nepal, Myanmar, China, Indonesia, Thailand, Laos and Vietnam.

Conservation status : IWPA : Sch. V; LRlc (Nationally), DD (Globally).

Himalayan White-bellied Rat, *Niviventer niviventer*

Body dark grey above, white below, sharply demarcated on sides; fur spiny or soft; head and body length 11.4-16.6 cm; tail moderately long, 14.2-20.5 cm; bicoloured, dark above and whitish below; nocturnal and fossorial; inhabits montane forests up to 3600 m near streams; diets primarily vegetable matter, occasionally insects.

Distribution : *India* : Himachal Pradesh, Uttaranchal, West Bengal (Darjeeling district), Sikkim, Arunachal Pradesh, Assam, Manipur, Nagaland and Meghalaya. *Elsewhere* : In the mountains of Pakistan, Nepal, Bhutan, Myanmar, Cambodia, China, Formosa, Malaysia, Indonesia, Laos and Vietnam.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).



Himalayan White-bellied Rat,
Niviventer niviventer

Dark-tailed Himalayan Rat, *Niviventer langbianis*

Body brownish grey above, bright orange-brown on flanks, white below; head and body length 14 cm; tail longer, 14.8 cm, unicoloured, dark; fur soft, occasionally spinous; inhabits primary and secondary forests.

Distribution : *India* : Assam. *Elsewhere* : Myanmar, Thailand, Laos and Vietnam.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Thomas' Chestnut Rat, *Niviventer brahma*

Body orange brown above, greyish below; head and body length 14-15.5 cm; tail considerably longer, 21.5-24 cm, hairy, penicillate, faintly bicoloured, dark above, greyish below; fur soft, dense and long; inhabits cool, moist, dense temperate forests at about 1800 m altitude.

Distribution : *India* : Arunachal Pradesh and Assam. *Elsewhere* : Myanmar.

Conservation status : IWPA : Sch. V; CAMP : EN (Nationally), DD (Globally).



Tenasserim Rat, *Niviventer tenaster*

Body large, yellowish above, white below, tip of tail slightly tufted.

Distribution : India : Mizoram and Assam. *Elsewhere* : Myanmar and Vietnam.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).

Genus *Dacnomys* Large-toothed Giant Rat

Dacnomys is a large rat without having any characteristic external distinguishing feature. However, it can be distinguished by the presence of large and broad maxillary tooth rows and small bulla. Its popular name is derived from its relatively large molar teeth. It includes a single species, the Millard's Rat which also occurs in India.

Millard's Rat, *Dacnomys millardi*

A heavily build large rat, dark grey to brown above, flecked with buff, undersurface silvery grey to greyish white; head and body length 22.8-29 cm; tail longer, 32.5-33.5 cm, unicoloured, brown; found from 1050 to 1830 m altitude; habits and habitat not known.

Distribution : India : West Bengal (Darjeeling district), Arunachal Pradesh, Assam and Nagaland. *Elsewhere* : Nepal, China and Laos.

Conservation status : IWPA : Sch. V; CAMP : VU (Nationally), DD (Globally).

Genus *Hadromys* Manipur Bush Rat

This genus is monotypic and represented by the following species. It also occurs in India.

Hume's Manipur Bush Rat or Hume's Rat, *Hadromys humei*

Body speckled brown above, pale fawn to greyish white below and a rusty tinge on rump; head and body length 9.8-14 cm; tail slightly longer, 12-13.8 cm, bicoloured, dark above and pale below; fur soft and spiny; inhabits oak parkland, oak scrub and evergreen forests at 915-1220 m altitude; feeds mainly on tender shoots and leaves.

Distribution : India : Manipur and Assam. *Elsewhere* : China.

Conservation status : IWPA : Sch. V; CAMP : DD (Nationally & Globally).



Family DIPODIDAE

BIRCH MICE

Members of this family are characterised by remarkable adaptations for jumping. Their hind legs are four times longer or more than fore legs. Only single representative of this genus is found in India.

Chinese Birch Mouse, *Sicista concolor*

Small, mouse-like, drab grey fawn above, under parts paler; head and body length 6.7 cm and tail fairly long, 10.9 cm and bicoloured.

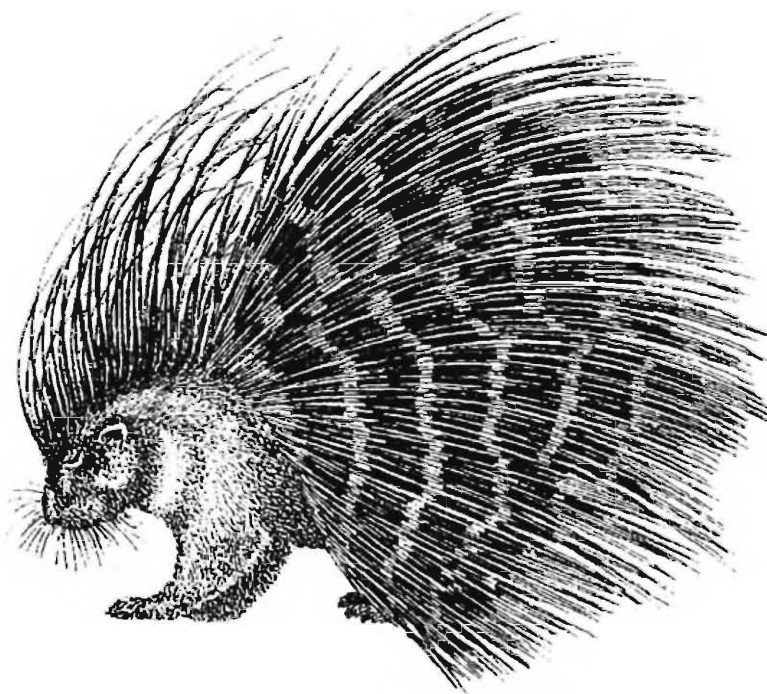
Distribution : India : Jammu & Kashmir at an altitude of about 3000 m. *Elsewhere* : Pakistan, China, Chinese Turkistan and Parts of former USSR.

Conservation status : CAMP : DD (Nationally & Globally).

Family HYSTRICIDAE

PORCUPINES

Porcupines can easily be identified by their characteristic long spines or quills which are modified dorsal hairs. These quills are usually shed and grow fresh unlike those of hedgehogs. Some other rodents also possess spines but these are not so long and strong. Three species of porcupines occur in India.



Indian Crested Porcupine, *Hystrix indica*

Indian Crested Porcupine, *Hystrix indica*

Largest porcupine of India, massive in build, head and body length 60-90 cm; tail short, less than one-fifth of that length; a long, brown crest of bristles present on head and neck; coarse bristles cover shoulder and belly; back covered with long quills bearing alternative bands of brown and white; nocturnal and fossorial; inhabits rocky habitat, sand dunes and deciduous forests; feeds primarily on vegetable matter.



Indian Crested Porcupine, *Hystrix indica*

Distribution : India : Throughout the country. *Elsewhere* : Sri Lanka, Nepal, Pakistan, west to Israel and north to Russian Turkestan.

Conservation status : IOWA : Sch. IV; CAMP : LRIc (Nationally), DD (Globally).

Himalayan Crestless Porcupine, *Hystrix brachyura*

Similar to the Indian Crested Porcupine but dorsal crest on crown and neck rudimentary or absent; head and body length 45-75 cm, tail short; quills on the back bearing only one

brown ring, rest white; nocturnal and fossorial; inhabits self-dug burrow in rocky habitat; feeds primarily on vegetable matter.



Himalayan Crestless Porcupine, *Hystrix brachyura*

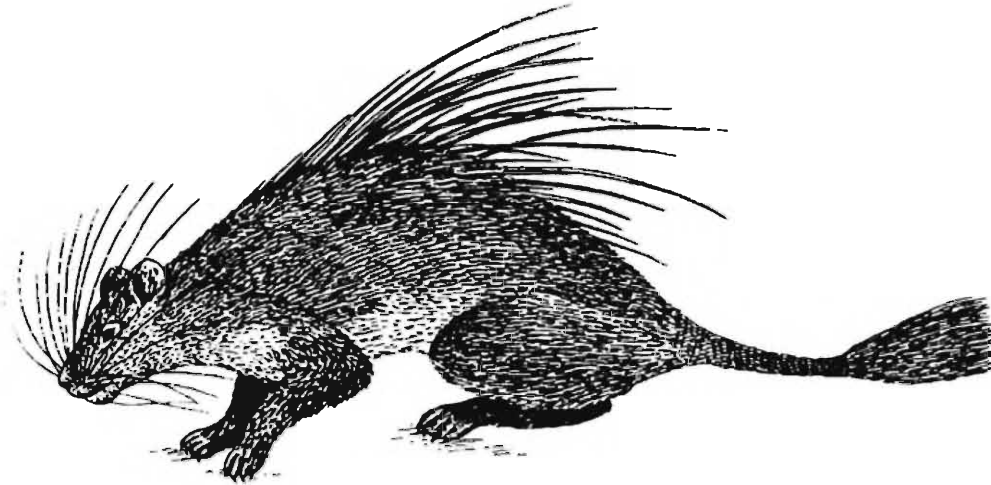
Distribution : India : Sikkim, Arunachal Pradesh, Assam, Manipur, Mizoram, Nagaland and Meghalaya. *Elsewhere* : Bangladesh, Nepal, Myanmar, China, Indonesia, Laos, Thailand and Vietnam.

Conservation status : IUCN : VU; CAMP : VU (Nationally), DD (Globally).



Asiatic Brush-tailed Porcupine, *Atherurus macrourus*

Smaller porcupine, head and body length 36-56 cm; tail one-third to half of that length; no crest on head; soft flattened spines cover neck, shoulders and under surface of the body; spines of lumber region longer and interspersed with white bristles; tail covered with scales, having short spiny bristles in between and with cluster of papery hairs at tip; nocturnal; lives in burrows among rocks in hilly areas; feeds on vegetable matter, insects and carrion.



Asiatic Brush-tailed Porcupine, *Atherurus macrourus*

Distribution : India : Arunachal Pradesh and Meghalaya. *Elsewhere* : Myanmar, China, Thailand, Laos, Vietnam, Malay Peninsula and adjacent islands.

Conservation status : IWPA : Sch. II; CAMP : EN (Nationally), DD (Globally).

Order LAGOMORPHA

Order Lagomorpha includes rabbits, hares and pikas or mouse-hares. They can be conveniently differentiated from the rodents in having four incisors on the upper jaw (a large anterior pair and a smaller posterior pair) instead of two in the latter. Moreover, lagomorphs have the testes permanently external but in rodents these are placed in the abdomen excepting in the breeding season. Indian Lagomorphs comprise two families.

Sl. No.	Family	No. of Genus	No. of Species	No. of Endemic species
1.	Ochotonidae	1	7	-
2.	Leporidae	2	4	-
	Total	3	11	-

Family OCHOTONIDAE

PIKAS

This family includes only one genus *Ochotona*, the members of which are popularly called the Pikas or the Mouse Hares. These are somewhat small in size, somewhat like a guineapig in build having small muzzle, small rounded head, short, broad and rounded ears, short legs (hind legs being scarcely longer than the fore) and tail absent. Indian Pikas are represented by seven species. All of them are found only in the Himalaya, usually on open rocky ground above the tree line. However, in the eastern part of the Himalaya they are found at somewhat lower altitude and inhabit pine forests of the steep slopes as well as in the open ground. Pikas are diurnal or crepuscular and feed on plant material. The following are the Indian Pikas.



Royle's Pika, *Ochotona roylei*



Royle's Pika, *Ochotona roylei*

Body reddish brown having a pale band over the nape; head and body length 15-20 cm; common Pika of the North-west and Western Himalaya; inhabits high elevation of the Himalaya between 3400 and 4300 m in open rocky ground and Pine and Rhododendron forests.



Royle's Pika, *Ochotona roylei*

Distribution : India : Jammu and Kashmir, Himachal Pradesh and Uttaranchal. *Elsewhere* : Himalayan mountains in Pakistan. Tibet, Nepal and Myanmar; Central Asia and China.

Conservation status : CAMP : LRnt (Nationally), DD (Globally).

Moupin's Pika, *Ochotona thibetana*

Body rich russet brown above, buff below; brown fur on the back side continues across the throat like a collar; inhabits the Himalaya at 1800-4100 m altitude in rocky areas in rhododendron forests and bamboo thickets.

Distribution : India : Sikkim. *Elsewhere* : Tibet, Bhutan, Myanmar and China.

Conservation status : CAMP : LRnt (Nationally), DD (Globally)

Steppe Pika, *Ochotona forresti*

Body reddish brown having grey patches behind each ear; nape grey; inhabits 2500-4500 m elevation of the Himalaya in forested slopes.

Distribution : India : Arunachal Pradesh, Sikkim and Jammu & Kashmir (Ladakh). *Elsewhere* : Bhutan, Myanmar and China.

Conservation status : IUCN : LRnt; CAMP : LRnt (Nationally), DD (Globally).

Daurian Pika, *Ochotona curzoniae*

Also popularly known as the Black-lipped Pika; body sandy brown, lips black giving one of its popular name; nose black-tipped, a distinct rusty patch behind each ear; inhabits the Himalaya at 5000-8000 m altitude.



Daurian Pika, *Ochotona curzoniae*

Distribution : India : Sikkim and Jammu & Kashmir (Ladakh). *Elsewhere* : Nepal, Tibet and China.

Conservation status : CAMP : EN (Nationally), DD (Globally).

Ladakh Pika, *Ochotona ladacensis*

Body sandy brown or grey above and white below; exterior of ears rust-coloured; inhabits the Himalaya at 4300-5400 m altitude.



Ladakh Pika, *Ochotona ladacensis*

Distribution : India : Ladakh (Jammu & Kashmir). *Elsewhere* : Pakistan and Tibet.

Conservation status : CAMP : DD (Nationally).



Nubra Pika, *Ochotona nubrica*

Body pale sandy brown above and pale grey below, having an indistinct buff line on its middle of the belly; found in alpine and subalpine forests.



Photo Courtesy : Otto Pfister

Nubra Pika, *Ochotona nubrica*

Distribution : India : Ladak (Jammu & Kashmir). *Elsewhere* : Nepal and Tibet.

Conservation status : CAMP : DD (Nationally & Globally).

Large-eared Pika, *Ochotona macrotis*

Body pale-brownish grey with an ochre tinge; ears broader having long hairs inside; inhabits alpine forests at 2500-6000 m altitude.



Photo Courtesy : Otto Pfister

Large-eared Pika, *Ochotona macrotis*

Distribution : India : Ladakh (Jammu & Kashmir). *Elsewhere* : Bhutan, Nepal, Pakistan, Afghanistan, China, Kazakhstan, Kirghizistan and Tadzhikistan.

Conservation status : CAMP : DD (Nationally & Globally).

Family LEPORIDAE

HARES AND RABBITS

Hares and Rabbits can be distinguished from the Pikas by their long ears and hind legs and by the presence of tail. Four species of hares occur in India.



Black-naped Hare, *Lepus nigricollis*

Also called the Indian Hare; head and body length 40-50 cm; presence of a dark brown or black patch on its neck from ears to shoulder makes it distinctive and gives one of its popular name; upper surface of tail black; preferred habitat bush and jungles alternating with cultivated plains.

Distribution : India : Almost throughout the country. *Elsewhere* : Bangladesh, Bhutan, Pakistan, Sri Lanka and Indonesia.



Black-naped Hare, *Lepus nigricollis*

Conservation status : IOWPA : Sch. IV; CAMP : LRLc (Nationally), DD (Globally).

Woolly Hare, *Lepus oiostolus*

Body brown, rump pale, tail brown above, dirty white below; head and body length 40-50 cm; fur thick and curly; preferred habitat open rocky terrain at 2500-5400 m altitude.

Photo Courtesy : G. S. Rawat, WII, Dehra Dun



Woolly Hare, *Lepus oiostolus*

Distribution : *India :* Jammu & Kashmir (Upper Indus Valley, Upper Sutlej Valley and Ladakh) and Sikkim. *Elsewhere :* Nepal, Tibet, China, Korea and Taiwan.

Conservation status : CAMP : DD (Nationally & Globally).

Cape Hare, *Lepus tolai*

Body grey, mixed with buff and black; head and body length 40-50 cm; tail black; ears long and fringed black on inside; prefers open rocky areas.

Distribution : *India :* Gilgit (Jammu & Kashmir). *Elsewhere :* Afghanistan, China, Kazakhstan, Mongolia, Russia and Caspian to Eastern Iran.

Conservation status : Not known.



Cape Hare, *Lepus tolai*

Photo Courtesy : Otto Pfister

Hispid Hare, *Caprolagus hispidus*

Body dark brown above, white below but chest brownish; head and body length 40-50 cm; tail shorter; fur coarse and bristly.

It is also called the Assam Rabbit as it is not a hare. It is closely related to the rabbit because its ears and hind legs are shorter and young are blind at birth and naked; but, hares possess open eyes at birth and are furnished with fur; inhabits terrai grasslands and forests of the Himalayan foot hills.



Hispid Hare, *Caprolagus hispidus*

Distribution : *India* : Assam, West Bengal and Uttar Pradesh. *Elsewhere* : Bangladesh and Nepal.

Conservation status : IUCN : EN; IWPA : Sch. I, Part I; RDB : CR; CITES : Appendix II; CAMP : NE.

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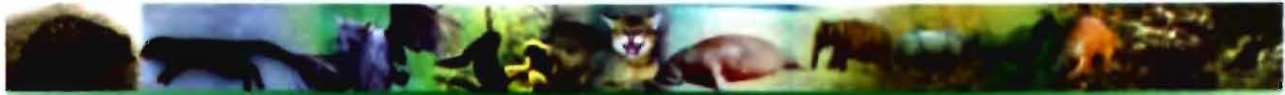
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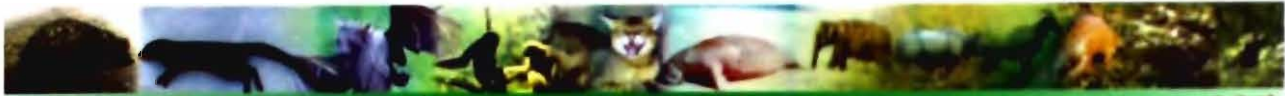
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Animals of India

MAMMALS

PRICE

India Rs. 1250.00

Foreign \$ 75; £ 60

ISBN 81-8171-094-0

