

Mammals of Sikkim



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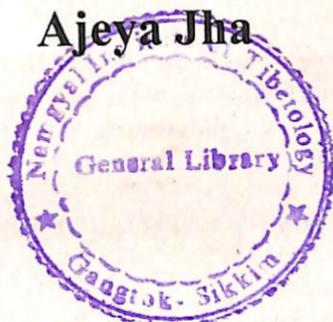
WWF-India Mission

*The promotion of nature conservation and environmental protection
as the basis for sustainable and equitable development.*

Mammals of Sikkim

Ravikant Avasthe

Ajeya Jha



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Sikkim Field Office, Deorali
Gangtok, Sikkim - 737 102



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**DEPARTMENT OF SCIENCE &
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Foreword

It is heartening to learn that World Wide Fund For Nature-India, Sikkim Field Office is bringing out a book on mammals of this region. One hundred years ago Jerdon and Blandford had recorded about 81 species of mammals. The local Lepcha naturalists had pointed out then that the number is far less than what actually existed in the wild. Now correctly the number has gone upto 156 species and sub-species. There should be still more surveys of the watershed of Tolung Valley, which is least explored and fully studied. It is likely that many may have also gone extinct in the intervening period. But the possibility of re-introducing them in their original habitats could be tried. Sikkim Stag and Pygmy Hog are two cases in point. It is indeed appreciable that young student-engineers who had just been to Sikkim have used their knowledge of computer engineering to re-produce excellent illustrations and all in one compact handbook.

A lot of work has gone into in the field of flora of Sikkim but surprisingly its rich faunal wealth is least recorded for atleast laymen except of course, on Birds by Salim Ali and on Butterflies by Meena Haribal. This book is well illustrated, simple yet a real reference guide. It should help the visitors, students and the common people identify the State's rich heritage. At a time when we are keen to educate our younger generation on all facets of our rich bio-diversity, a series of such simple and yet authentic handbooks would indeed be extremely useful.

K. C. Pradhan, IAS (Retd.)
Former Chief Secretary and Advisor to
the Government of Sikkim
and
Chairman, WWF-INDIA
Sikkim Advisory Committee

Gangtok, Sikkim

October 30, 1998



Preface

Sikkim is very well endowed with rich biological heritage and this can be established in the present context from the existence of 4,500 flowering plants, 450 odd orchids, 36 species of Rhododendrons, 44 species of reptiles, 700 species of butterflies, almost 500 species of birds along with 156 species of mammals. And all these in just 7096 sqkm that comprises the State. Sikkim as many readers would recall is a globally recognised biodiversity "hotspot". WWF-India initiated its activities in this State in June 1994 by launching field projects in various areas of biodiversity conservation through funding received from John D. & Catherine T. MacArthur Foundation, USA. It did not take us very long to realize that our sincere attempts would not bear fruit without a concerted drive on environmental education and raising awareness levels.

We then came to terms with the fact that despite the immense richness and diversity of life forms that enliven Sikkim, available information was not compiled. We have designed this handbook to provide basic information on 156 species and sub-species of mammals of the State with some 70 diagrams. To make it more complete we have included a few animals, particularly the smaller ones, which have been reported from the adjoining areas of Sikkim. We are sure this will be a useful book to raise the awareness levels of different sections of the society, beginning at the school level. This is the first such attempt, hopefully, more will follow.

This book has seen the light of the day with the encouragement and cooperation of many like-minded people, we thank all those who were directly or indirectly involved.

We are greatly indebted to Mr. Samar Singh, Secretary General, World Wide Fund For Nature - India for his constant encouragement and enthusiastic support for our efforts in the area of environment education (EE). We sincerely acknowledge the keen interest evinced by Mr. A. R. K. Sastry, Director- BHCP, WWF - India Secretariat in all our activities, especially in the field of EE.

We convey our special gratitude and thanks to Mr. C. Lachungpa, DFO (Wildlife). He has not only been extremely kind but also very supportive of our various activities. Hopefully, he will continue to be the pillar of strength that he has been, in the time to come. He is also thanked for confirming the local distribution of the mammals discussed in this book.

We are obliged to Mr. P. O. Pazo, IFS (Retd.), ex-Secretary and Ms. Usha Lachungpa, Senior Research Officer, Department of Forests, Government of Sikkim for their cooperation and patience in generously



providing various details. We also thank Ms. Punam L. Rappyal, the then Assistant Education Officer who initiated this work.

We thank Dr. Rahul Kaul, World Pheasant Association and Mr. Manoj K. Mishra, IFS, Director, TRAFFIC-India for suggesting improvements in this book.

In order to authenticate the scientific information provided in an educational book like this, we approached two eminent naturalists of the country. We express profound gratitude to Prof. Asad R. Rahmani, Director, Bombay Natural History Society (BNHS) and Prof. A.H. Musavi, Secretary, World Pheasant Association - India Chapter, for sparing their valuable time on reviewing and evaluating the manuscript and suggesting valuable improvements.

Books like these need technical support and when we first decided to compile the information available into a simple, easy to understand material, this kind of output was not on the anvil. But, when we came across couple of extremely enterprising and cooperative bright young engineering students from Manipal Institute of Technology, Sikkim in Adil Muzzaffar, Kaushik Mohan Das and their friends, the entire idea crystallized into its present format. We are highly thankful to them for their excellent technical work, this has been possible only because of them.

We are also sincerely thankful to Mr. K.C. Pradhan, IAS (Retd.), Chairman, WWF-India Sikkim Advisory Committee, Mr. T.R. Sharma, IFS, PCCF cum Secretary, Department of Forest and Mr. D.K. Gurung, SMES, Secretary, Department of Science & Technology, Government of Sikkim for their constant support. We appreciate the cooperation of the staff of the Sikkim Field Office.

This book is dedicated to the land, people and culture of Sikkim.

Ravikant Avasthe & Ajeya Jha



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Introduction

Nestled in the laps of Himalayas, Sikkim is a land of dreams. The pristine glory of this land has so far been retained and its guardian deity, till not so long ago, kept its ecological purity and diversity alive.

It is a land predominantly alpine in character offering almost all possible mountain panorama. The altitude here ranges from 300 to 8580 m. Thus, summers are hot and the temperature in the lower reaches may soar to about 40° C. Winters are considerably cold particularly at the higher elevations where snow covers the landscape throughout the year. Further, a typical tropical monsoon prevails over this tract. The heavy rainfall this region receives and its proximity to Bay of Bengal makes it one of the most humid tracts on Himalayas and therefore, thick and vast forests cover practically the entire state. There are also such regions in Sikkim which are practically rainless. Partly because of a wide variety of climatic and topographical features and partly because of its ecologically crucial location (between palearctic and oriental regions) Sikkim's biodiversity is matched by only a few other regions of the world.

Further, it is not just the level of diversity that makes Sikkim an area of interest. The level of endemism, the number of species found nowhere else, is also exceptional. Thus Sikkim is enchanting for wildlife scientists. The breathtaking beauty, erratic, unpredictable weather and rugged terrain add to its charm and romance.

Sikkim has a wide variety of forest types - hot tropical to arctic type desert, which exist side by side in close proximity and can not be clearly delineated. Transition from tropical to temperate to alpine is abrupt. The ecological outcome of such a unique mosaic of habitats is the richness of fauna within a limited area of about seven thousand square kilometers. The forests in the warmer parts of the state are richer in terms of the number of species as well as numerical abundance.

The forests of Sikkim have been classified into five major types on the basis of altitude and composition.

Tropical Semi-Deciduous and Tropical Wet forests (Up to 900 m)

Most of the southern river-valleys fall into this category. These forests are an extension of the home for animals from Indian peninsula. Gaur, Leopard, Tiger, Fishing Cat, Jackal, Common Langur, Rhesus Monkey, Smooth Indian Otter, Wild Boar, Flying Fox and other fruit-eating bats, Mouse Deer, Small Indian Civet and the like are the important species of these forests. Elephant, which was reported from Sikkim many a decade back, is perhaps the richest faunal expression of this type of habitat

Tropical Moist forest or Broad-leaved forest (900-1,800 m)



At this range many of the mammals from Indian peninsula begin to disappear in favour of Himalayan-type fauna. Malayan Giant Squirrel, Himalayan Civet, Crab-eating Mongoose, Barking Deer, Tree Shrew, Himalayan Black Bear are some of the important species of these forests. However Leopard, Tiger and many other animals of tropical region are still found occasionally. Weasels, Flying Squirrels and some other animals of higher altitudes descend to these forests during winter.

Temperate Broad-leaved and Coniferous forests (1,800-3,800 m)

These forests are characterised by the absence of most animals of Indian peninsula. The faunal expression in here assumes an unmistakable Indo-Chinese character and many animals such as Red Panda, Badger, Ferret Badger, Crestless Porcupine and Serow of Assam, Myanmar and Southern China are found in abundance here also. Clouded Leopard, Assamese Macaque, Marbled Cat, Golden Cat, Binturong, Large Indian Civet, Himalayan Striped Squirrels, Musk Deer, Flying Squirrels, Weasels, Yellow-throated Marten, Clawless and Common Otters, Himalayan Water Shrew, Himalayan Tahr, Takin and Sikkim Vole are some other creatures of these forests.

Sub-Alpine vegetation (3,800-4,500 m)

Trees at these elevations disappear giving way to scrub zones where the vegetation becomes sparse and comprises mainly of dwarf species, an adaptation imposed by the strong breeze blowing 24 hours a day 365 days a year. The fauna at these elevations assumes a distinct character and is dominated by animals of European and North-Asian descent. It is here that we come across Snow Leopard, Tibetan Lynx, Brown Bear, Stone Marten, Alpine Musk Deer, Tibetan Wolf, Wild Dog, Woolly Hare, Marmots, Nayan, Bharal, Shapi or Himalayan Tahr (during summers) and domestic Yak.

High Altitude Desert (4,500-5,500 m)

Located at this altitude are the barren plateau and uplands which lie beyond the Himalayas but well within the northern boundary of the state. The climate of this region is characterised by scanty rainfall and very low temperature. Like the Tibetan plateau and eastern Ladakh, this is a region of confluence of desert and arctic conditions.

The fauna of this place is unique in the sense that it has many Tibetan elements. Kiang, the Tibetan ass, hill-fox, Tibetan fox, Tibetan Gazelle, Tibetan antelope, mouse hares and Tibetan wolf are the characteristic species of this region. Bharal, nayan, domestic yak and stone martens are also present.

Sikkim, therefore, is unique in being a blend of four distinct types of fauna - the Indian, Indo-Chinese, European and the Tibetan. As a result, it provides a wonderful opportunity to preserve so much of biological diversity by conserving so little a land.



Since this book is on the mammals of Sikkim a few words about the Mammals in general would not be out of place.

Mammals are warm-blooded vertebrates who give birth to young ones and suckle them. They have teeth and hair. Their body temperature is maintained within a limited range irrespective of the atmospheric temperature and this is one of their important attributes which enabled them to inhabit widely diverse climatic regions of the globe. They have well developed senses of touch, sight, hearing, smell and taste.

Like most other animals, mammals too have food preferences. Those who eat only leaves and grasses are called herbivorous, those killing and eating other animals are called carnivorous, the insect eating ones are called insectivorous, the fish-eaters are piscivorous and those with a wider choice are omnivorous.

As Sikkim is a cold climatic region, most mammals come out of their shelters when the sun rises and it becomes warm and they retire to their resting places when the sun sets and the atmospheric temperature drops down. Some mammals hibernate during winters when it becomes too cold for them and their food also becomes scarce. Some other mammals migrate from colder to relatively warmer regions (higher to lower altitudes) within the state during winter and move back with the onset of summer. Known as local migration, this is a device to avoid intolerable climatic conditions and is also prompted by seasonal abundance and scarcity of their preferred food at different heights.

Till the beginning of this century forests were so extensive and wildlife so abundant that their continuation was taken for granted. Our predecessors did not know also the ecological importance of forests and wildlife. As a consequence forest wealth was indiscriminately exploited (in fact it was plundered) and wildlife was ruthlessly hunted (or we may call massacred). The obvious result of that senseless attitude of people has been the fast shrinking forests and disappearance of many species of wildlife (and scarcity of many other species).

Fortunately we have now realised the importance of conserving forests and wildlife and efforts are being made by government as well as non-government organizations to restore the pristine state of both forests and their wild inhabitants. But this is a stupendous task because great damage has been done. However the goal may still be achieved provided common people join the mission. The role of younger people, more particularly the children, is expected to be crucial for the success. The first step in this direction is creation of awareness of the importance of conserving nature and the awareness of various components of nature - forests and wildlife in particular.



The book is certainly not exhaustive. Quite a few species, particularly the smaller ones including rats, mice and bats still remain untouched and undiscovered. Some wildlife experts like Mr. P.O. Pazo, ex-Secretary, Department of Forests, Government of Sikkim are of the opinion that even larger species may also exist in some of the remote and inaccessible areas of the State. Some others discount any such possibility. Whatever may be the actual truth, we suggest our readers, particularly the younger lot, to keep an open mind. Nature indeed has many more surprises in store for us.





The Wildlife (Protection) Act, 1972 - its Schedules

*Shalini Bhutani**

The **Wildlife (Protection) Act, 1972** is a statute legislated by the Union Parliament and is applicable all over India (except in the state of Jammu and Kashmir which has its own Act for the purpose). As the name of the Act itself suggests, this legislation seeks to provide for protection of wildlife. The Act has been in force in the state of Sikkim with effect from 1976.

The structure of the Act is as follows; it consists 66 sections which contain the law on the subject. Appended to the Act are six Schedules which are essentially lists of animals, birds, plants and other organisms.

According to the scheme of the Act species listed on **Schedule I** get the maximum protection of the law. The list in this schedule is divided into four parts:

- PART I Mammals,
- PART II Amphibians and Reptiles,
- PART III Birds and
- PART IV Crustacean and Insects.

Likewise **Schedules II, III and IV** are also listings of wildlife. Though the animals listed herein are also protected, yet the degree of protection is lesser than that of Schedule I species.

Schedule V contains a list of animals which the Act classifies as 'vermin'. As you are probably aware, a vermin is a pest, i.e. a living being regarded as being a nuisance from the human point of view. The Act does not provide any protection to vermin. As of today there are four (common crow, fruit bats, mice and rats) which are listed as vermin in this Schedule. What is to be regarded as a vermin and for how long is a matter decided by the Central Government. It must however be remembered that the Government cannot declare anything which is listed on Schedule I and Part II of Schedule II to be a vermin.

Schedule VI contains a list of plants. The Act when it was originally passed did not have any mention of plants, this created a problem in extending the application of this law to plant species. Subsequently, a specific chapter, namely **CHAPTER-III A Protection of Specified Plants** was introduced into the text of the Act which deals only with plants. The protection envisaged in this chapter is extended to those plants listed in Schedule VI. Presently, this schedule contains only six entries.

* Law Officer, Centre for Environmental Law, World Wide Fund for Nature - India



IUCN RED LIST CATEGORIES

EXTINCT(EX)

A taxon is Extinct when there is no reasonable doubt that the last individual has died.

EXTINCT IN THE WILD (EW)

A taxon is Extinct in the wild when it is known only to survive in cultivation, in captivity or as a naturalised population well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Surveys should be over a time frame appropriate to the Taxon's life cycle and life form.

CRITICALLY ENDANGERED (CR)

A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future.

ENDANGERED (EN)

A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future.

VULNERABLE (VU)

A taxon is Vulnerable when it is not Endangered but is facing a high risk of extinction in the wild in the medium-term future.

LOWER RISK (LR)

A taxon is Lower Risk when it has been evaluated, does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable. Taxas included in the Lower Risk category can be separated into three sub-categories:

- 1. Conservation Dependent (cd).** Taxa which are the focus of a continuing taxon-specific conservation programme targeted towards the taxon in question, the cessation of which would result in taxon qualifying for one of the threatened categories above within a period of five years.
- 2. Near Threatened (nt).** Taxa which do not qualify for Conservation Dependent, but which are close to qualifying for Vulnerable.
- 3. Least Concern (lc).** Taxa which do not qualify for Conservation Dependent or Near Threatened.

**DATA DEFICIENT (DD)**

A taxon is Data Deficient when there is inadequate information to make a direct or indirect, assessment of its risk of extinction based on its distribution and/or population status.

NOTEVALUATED (NE)

A taxon is Not Evaluated when it has not yet been assessed against the criteria.





PRIMATES

We begin our narration with Primates which occupy the prime position in the animal kingdom because of their close resemblance to man. In fact, man himself is a primate. The members of this family in Sikkim are adept climbers and hence, they prefer forests rather than the open areas and are quite at home in and near human settlements. At times they wear almost a human expression but actually are not as intelligent as they appear. They largely feed on buds, fruits, leaves and other vegetation.

1. Common Langur (*Presbytis entellus entellus*)

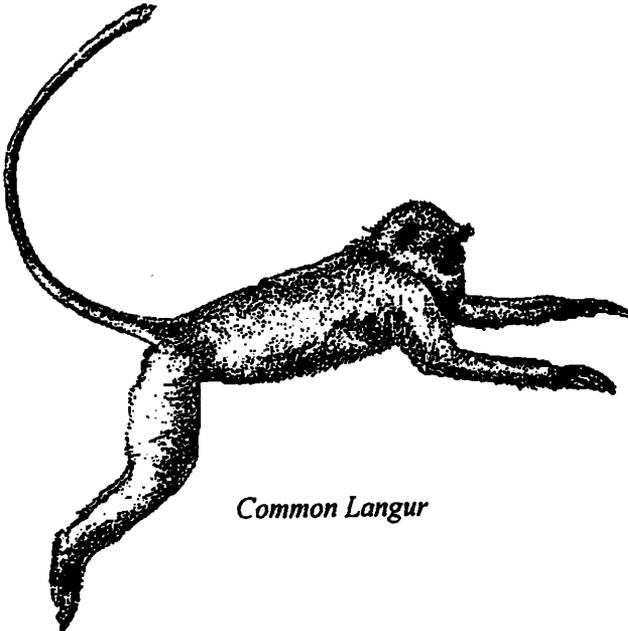
Local name: *Suhu* (Lepcha); *Tedu* (Nepali)

Distribution: Bengal, Lower Sikkim and Central India. In Sikkim, it is found throughout the state at lower elevations. Khangchendzonga National Park.

Size: Male, head and body length 75-80 cm.; tail 110-115 cm.; weight 9-16 kg. Female, distinguishably smaller.

Description: Pale dirty or ashy grey; darker on the shoulders and rump; paler on the head and lower parts; hands and feet black. Lives on grain, fruit, young buds and leaves. Is exceptionally susceptible to cold.

Status: Schedule II Wildlife (Protection) Act, 1972 (henceforth abbreviated WPA)



Common Langur

2. Himalayan Langur (*Presbytis entellus schistaceus*)

Local name: *Kamba suhu* (Lepcha); *Kubup* (Bhutia)

Distribution: Scattered all over the Himalayan range. In Sikkim, it is found at Khangchendzonga National Park and other regions at elevations upto 4000 m. Two varieties of himalayan langur have been reported which differ in size, pelage and size of the group. (The Gazetter of Sikkim).

Size: Head and body 80-85 cm.; tail 100-110 cm.; weight 16-21 kg.

Description: Dark slaty above; head and lower parts pale yellowish; hair on the crown short and radiated. Braves the cold upto 3700 m. over the mountains. Moves around in pairs rather than in groups unlike the Common Langur.

Status: Schedule II (WPA, 1991)

3. Rhesus Monkey (*Macaca mulatta mulatta*)

Local name: *Suhu* (Lepcha); *Piyu* (Bhutia)

Distribution: Himalayas, Assam, and Northern and Central India. In Sikkim, it is well spread all over the state at lower and higher elevations. The animals in the north are slightly bigger and have heavier and much luxuriant coats to protect them against the biting cold. They have been observed wintering in the pine forests at elevations as high as 2400 m. also. Some zoologists consider the tropical and the temperate varieties as two distinct sub-species.

Size: 80-85 cm. including 24-28 cm. long tail; weight 7-10 kg.

Description: Above brownish ochre or rufous; limbs and beneath ashy brown; face of adult males red. Noted for its docility and is not a very uncommon pet.

Status: Schedule II (WPA, 1991)



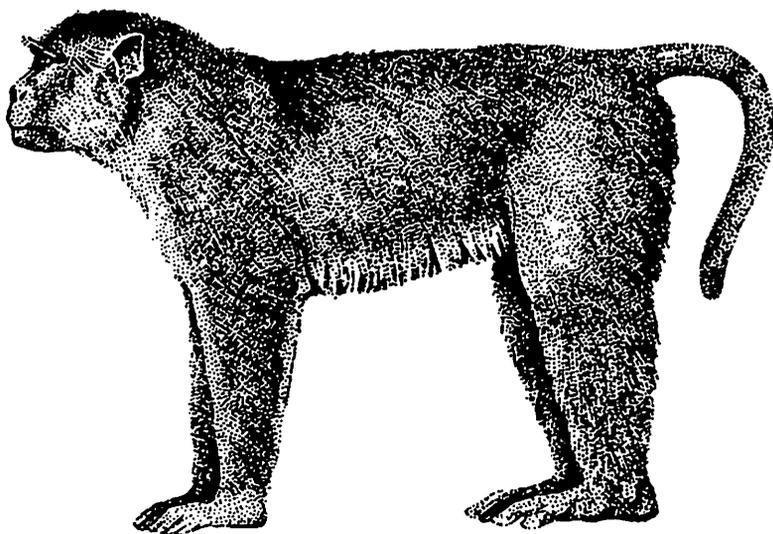
4. Assamese Macaque (*Macaca assamensis pelops*)

Distribution: Himalayas from Mussoorie eastwards to the hill ranges of Assam and the forests of Sunderbans, extending upto Myanmar. In Sikkim, it has a wide range of distribution from Tista and Rangit valleys reaching upto heights not less than 3000 m. Common at Khangchendzonga National Park.

Size: Head and body a little over 60 cm.; tail about 20 cm.. Male may weigh about 12 kg.

Description: Can be distinguished from the Rhesus Macaque by the absence of orange-red hue on its loin and rump. It is also larger and heavier. Usually haunt thick forests. During winters descend to elevations of 600-1200m.

Status: Schedule II (WPA, 1991)



Assamese Macaque



THE CATS

Cats: The charm, grace and delicate built of cats is nature's most amazing deception. A hunter lurks in the heart of even the most innocent looking kittens. Some of the most remarkable and successful hunters of the animal kingdom belong to this family. Unlike wolves or wild-dogs they hunt alone (though lions hunt in packs) and do not run their victims down. Surprise attack is the essence of their hunting. They are confirmed flesh eaters.

5. **Tiger** (*Panthera tigris*)

Local name: *Bagh* (Nepali); *Surya* (Lepcha)

Distribution: It is found in India from the Himalayas to Kanyakumari except in the deserts of Rajasthan, the Punjab and Kutch. Tracks have been found upto altitudes of 3000 m. In Sikkim, Tigers enters from either West Bengal or Bhutan. They normally enter from Lava forest - Rachela, Talkharga, Regu, Phadamchen, Zuluk, Gnathang, Bhusuk yalli, Men-men chu RF, Changu, Lagyap RF, Tamze RF, Kabi, Phensung, Phodong, Ringu, Tong RF, Chyakhung RF, Khudum, Lema, Lachung, Dombangin north-east and Karchi, Loddang, Phamthey, Maenam and Rumdung in south-west and follow the same route back to Lava after about three months. They enter Sikkim during October-November.

Size: 2.8-3.0 m. including the tail; weight 180-230 kg. (male).

Description: Hardly needs any introduction. Easily recognised by its large size, rufous-coloured well striped fur with white or cream under-parts. An excellent predator it hunts between dawn and sunset. Is solitary by nature.

Status: Schedule I (WPA, 1991)



Tiger



6. Leopard (*Panthera pardus*)

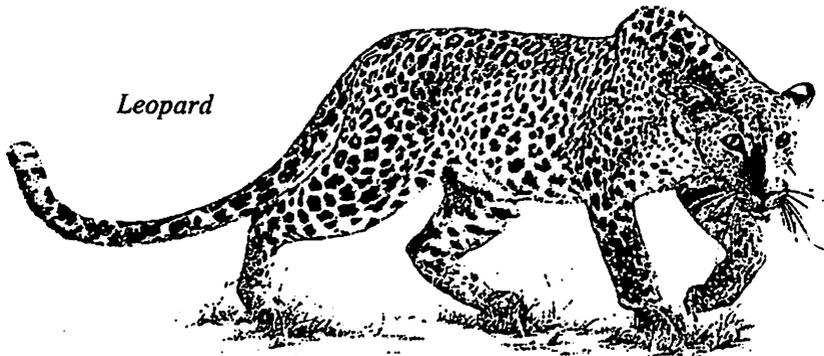
Local name: *Chitta* (Nepali); *Suchyak* (Lepcha)

Distribution: It is common all over India from the scrub forests of Western India to the evergreen forests of south and eastern India. The panther of Nepal and Sikkim are considered distinct race (Prater). In Sikkim, it is found at Rishi, Rhenock, Manpur, Kitam RF, Sombaria and Khangchendzonga National Park.

Size: 2.1-2.2 m. including the tail; weight 60-70 kg.

Description: It is a sleek, short-haired animal with a fulvous coat marked with small, close set, black spots. A versatile predator it hunts from dusk to the early hours of darkness and feeds upon herbivores, large birds, monkeys, dogs and domestic cattle.

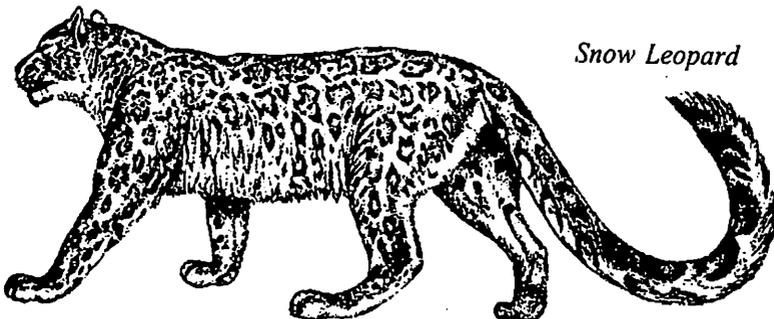
Status: Schedule I (WPA, 1991)



7. Snow Leopard (*Uncia uncia*)

Local name: *Iker* (Tibetan); *Sah* and *Zig* (Bhutia); *Phale* (Lepcha); *Hiun Tendua* (Nepali)

Distribution: In India it is found in the Himalayas from Kashmir to Sikkim at elevations ranging between 3600-4000 m. In Sikkim, it is found at





Lasher valley, Yumesamdang, Cho Lhamu, Near Thanggu, Sebu la, Lhonak valley, Youncho, Seokun, Bhamchona, Chulung valley, Nimphu, Kishongla, Rithong, Thosa, Lampokhari, Dzungri, Sevo, Semchang kha, Sarum, Dudhpokhari and Khangchendzonga National Park.

Size: Head and body 100-105 cm.; tail about 90 cm.; weight 40-50 kg.

Description: One of the most charming animals, it has a distinct short muzzle, high forehead and vertical chin. The coat colour is soft grey paling to pure white on the underside. The spots are distinct on the head, nape and lower parts of the limbs. On the body they form large rosettes. It hunts mostly at night preying upon sheep, goats and bharal.

Status: Schedule I (WPA, 1991)

8. Clouded Leopard (*Neofelis nebulosa*)

Local name: *Tungmar* (Lepcha); *Zik* (Bhutia); *Lamchitta* and *Dhwanse chitua* (Nepali)

Distribution: Nepal, Sikkim, Assam, Arunachal Pradesh and further east. In Sikkim, it is found at Manpur, Kerabari, Kitam, Dzongu, Rhenock, Barapathing, Sombaria, Bagu, 6th Mile (Ranipool) and Khangchendzonga National Park.

Size: Head and body 90-95 cm.; tail about 100 cm.; weight 20-24 kg.

Description: Has a long body and tail and short limbs, rounded black ears with a grey patch in the center. It has very well developed upper canine teeth very similar to those of now extinct sabre-toothed tiger. General body colour is earthy brown fading to white on the undersides. The face is marked with the usual cheek stripes common in the smaller cats and the head is spotted. It is nocturnal in habit and preys on deer, goats, pigs, and squirrels.

Status: Schedule I (WPA, 1991)





9. **Leopard Cat** (*Felis bengalensis horsfieldi*)

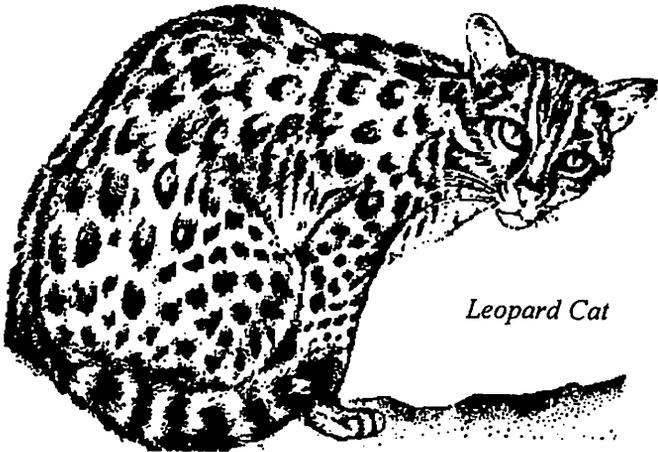
Local name: *Chita-biral* (Nepali); *Sa-ryok* (Lepcha)

Distribution: Found in the forests from Kashmir and the Himalayas to Cape Comorin. In Sikkim, it is quite common throughout the state at elevations ranging upto 2100 - 2400 m. Population rather high at Khangchendzonga National Park.

Size: Head and body 60-65 cm. including the tail ; weight 3-4 kg.

Description: Leopard cat is about the size of a domestic cat but with longer legs. Its colour and markings make it look like a miniature leopard. It is nocturnal in habits and preys on rodents, birds and small mammals.

Status: Schedule I (WPA, 1991)



Leopard Cat

10. **Marbled Cat** (*Felis marmorata charltoni*)

Distribution: Sikkim and Assam. In Sikkim it is reported by the Zoological Survey of India from the Chungthang Bob area in North Sikkim. Not uncommon at Khangchendzonga National Park.

Size: Body length 90-100 cm. inches including the tail; weight 6-7 kg.

Description: It is easily distinguished from other cats by its



Marbled Cat

short, broad and round skull and wide cheek arches. The teeth are more robust and chin vertical. It has a thick, rich ochreous-brown coat with black stripes and blotches giving it a marbled appearance. It preys on rodents, squirrels and birds.

Status: Schedule I (WPA, 1991)

11. Fishing Cat (*Felis viverrina*)

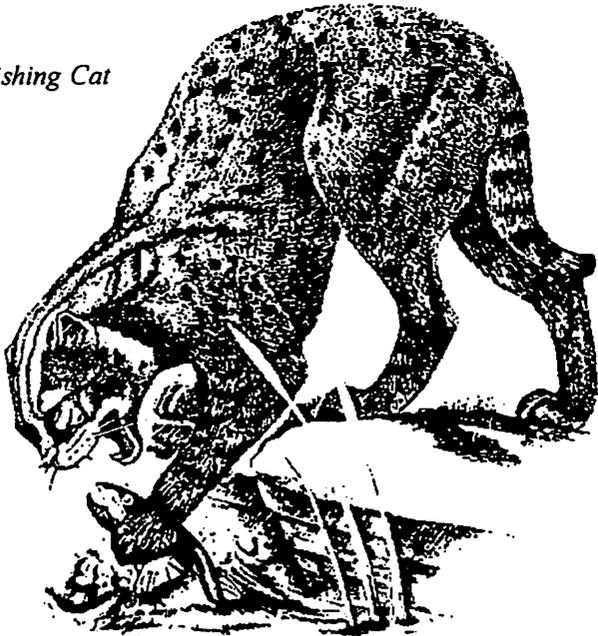
Local name: *Mach baghral* (Nepali)

Distribution: Nepal, Bengal, Orissa, Assam, Sikkim and Arunachal Pradesh. In Sikkim, it is widespread upto the elevations of 1800 m in East and South districts close to the streams and other water bodies.

Size: Head and body 90-100 cm.; tail 25-30 cm. inches; height 44-48 cm.; weight 13-17 kg.

Description: Has a greenish-grey coat with light stripes. This outer coat protects it from getting wet. The claw-sheaths are shortened hence, the claws are not fully retractile. The feet are semi-webbed. An excellent swimmer and a diver it is known for its ferocity, fearlessness and power and has reported at times to ambush even a leopard! (Sterndale)

Fishing Cat



Status: Schedule I (WPA, 1991)



12. Golden Cat (*Felis temmincki temmincki*)

Local name: *Sonali Biral* (Nepali)

Distribution: Nepal, Sikkim and Arunachal Pradesh. In Sikkim, it has been reported from Pangdin, Kangarten, Lasher, Thela, Green lake, Marcopolo camp, Shibringu within Khangchen-dzonga National Park, Tamzay, Thosa lake, Chimathang, Gochela, Lampokhari. Very rare.

Size: Head and body 75-80 cm. inches; tail 40-45 cm. inches; weight 24-28 kg.

Description: One of the most beautiful cats. The coat is rich and luxurious and in colour ranges from golden-brown to dark brown shade. It prefers elevations upto 2000 m where it lives amongst rocks and in hollows of the trees and preys upon goats, sheep, deer, squirrels and birds.

Status: Schedule I (WPA, 1991)

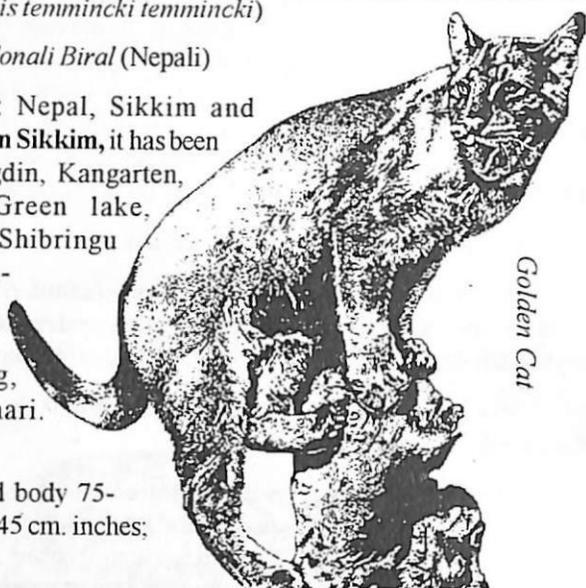
13. Jungle Cat (*Felis chaus affinis*)

Local name: *Ban Biral* (Nepali)

Distribution: Throughout India. In Sikkim it is common at Tropical forests of the state.

Size: Head and body about 60 cm.; tail 25-30 cm.; height at shoulder 45 cm.; weight 6-8 kg.

Description: Similar to domestic cat but has relatively long legs and short tail. The Himalayan jungle cats have thicker winter coat which is grizzly grey in colour with faint stripes and/or spots. It is most active during dawn and dusk when



Golden Cat



Jungle Cat



it hunts birds, rodents, hare, domestic animals and poultry.

Status: Schedule II (WPA, 1991)

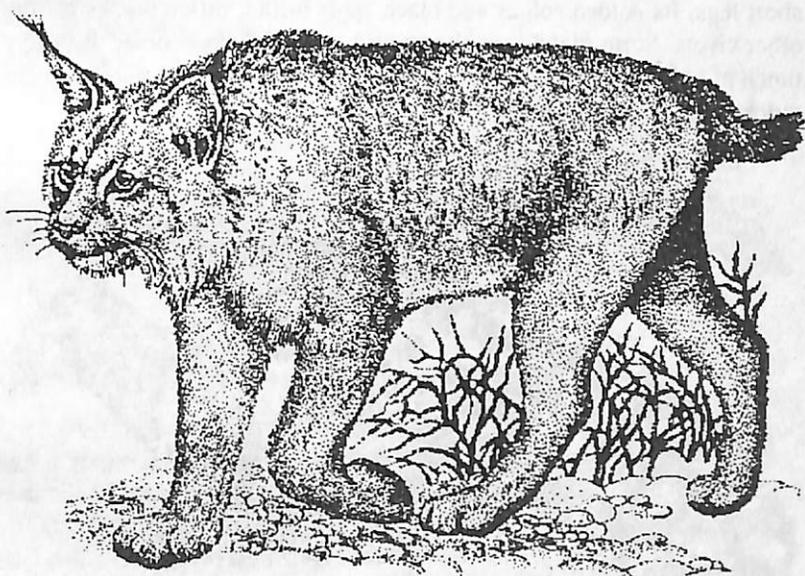
14. Tibetan Lynx (*Felis lynx isabellina*)

Distribution: Gilgit, Ladakh, and Tibet. **In Sikkim**, it has been seen around the meadows of Plateau region (Lachungpa, C. 1998. *Pers. Commun.*)

Size: Head and body 80-90 cm.; tail 18-22 cm.; weight 25-27 kg.

Description: The long erect tufts of hair on the tips of its ears and a tiny tail distinguishes from other cats. In summer its coat shows a sprinkling of spots which may persist, but which usually disappear in the heavier winter coat.

Status: Schedule I (WPA, 1991).



Tibetan Lynx



CIVETS

Civets: The so called civet-cat is not a member of the cat family. It has a long body, about the size of a domestic cat, short legs and a tapered head with small ears, and a long bushy tail. Being nocturnal hunters they prey upon small animals. They may also eat dead animals and vegetable materials. The secretion of its scent glands is valuable both for perfume and medicine and hence is extracted from the live animal in a cruel fashion. Animal activists, however, are now raising their voices against such practices.

15. Tiger civet or Spotted Linsang (*Prionodon pardicolor pardicolor*)

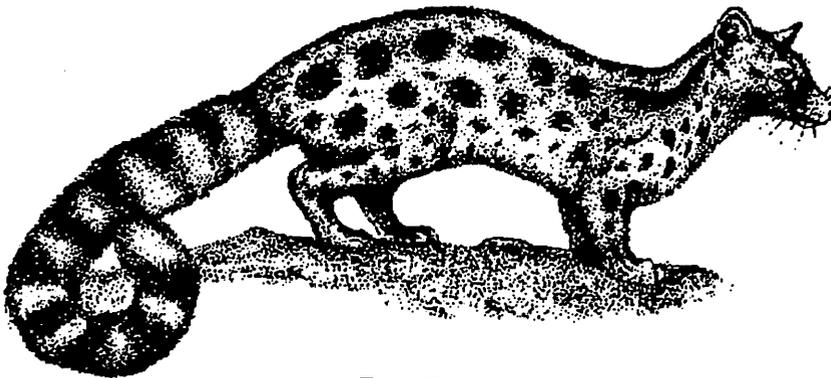
Local name: *Zik-chum* (Bhutia); *Suliyu* (Lepcha)

Distribution: Not very uncommon in the forests of Central and Eastern Himalayas. In Sikkim, it is wide spread in the tropical and sub-tropical forests upto the elevations of 2100 m, but is not very common.

Size: Head and body 36-38 cm.; tail of about same length; weight 1 kg.

Description: It has a typical build with pointed muzzle, long body and short legs. Its golden colour and black spots further differentiates it from other civets. Scent glands are absent and so is the upper molar. It is very much at home on trees and is almost exclusively arboreal where it moves quickly and hunts efficiently.

Status: Schedule II (WPA, 1991)



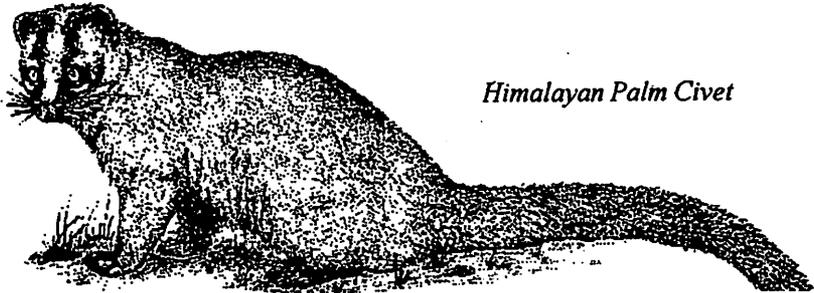
Tiger Civet

**16. Himalayan Palm Civet (*Paguma larvata*)****Local name:** *Himali Kastoori Biralo* (Nepali)

Distribution: Spread all over the western, central and eastern Himalayas and North-Eastern hill forests. In Sikkim, it is found at the tropical and sub-tropical areas of the state. Although found over a fairly large area, it is limited to fragmented patches. Reported by Zoological Survey of India from Yuksom area.

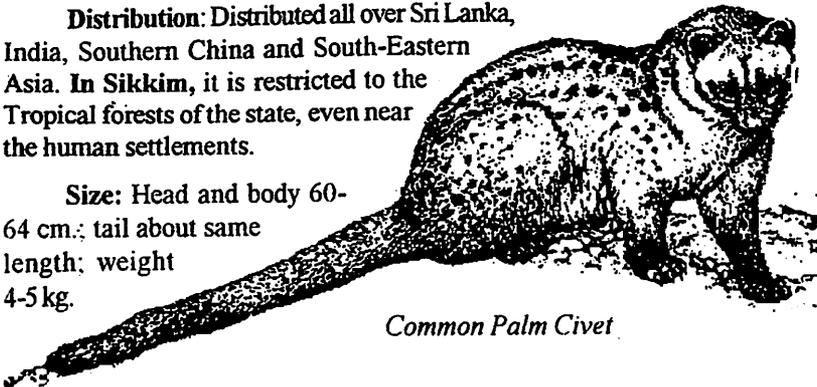
Size: Head and body 55-60 cm.; tail of about same length; weight 4-6 kg.

Description: Easily distinguished from other civets by the absence of spots and stripes on its body. Its coat colour ranges from grey to tawny with white underparts. Toes are soft and padded allowing it to move swiftly and silently. While running its thick bushy fur bloats to make it look bigger than it actually is.

Status: Schedule II (WPA, 1991)*Himalayan Palm Civet***Common Palm Civet (*Paradoxurus herma phroditus*)****Local name:** *Tadi Biralo* (Nepali)

Distribution: Distributed all over Sri Lanka, India, Southern China and South-Eastern Asia. In Sikkim, it is restricted to the Tropical forests of the state, even near the human settlements.

Size: Head and body 60-64 cm.; tail about same length; weight 4-5 kg.

*Common Palm Civet*

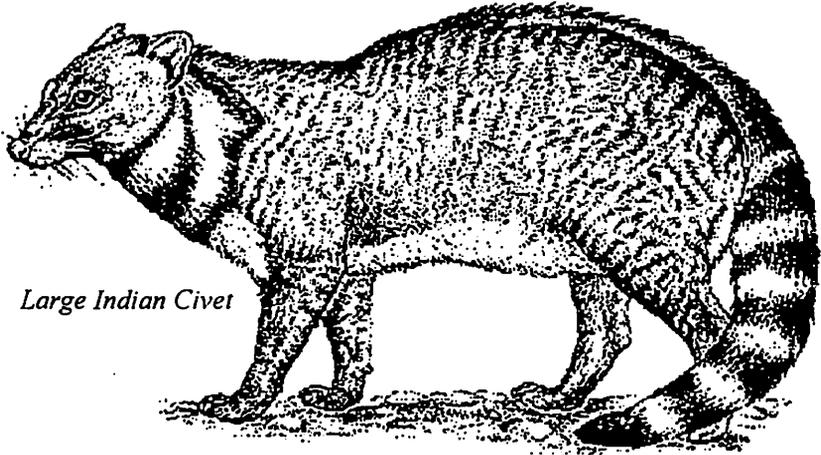


Description: A cat like animal but slightly bigger with a pointed muzzle. Coat is pale brown or grey. The stripes and marking on the back are hard to see. The forehead has a pale band running across.

Status: Schedule II (WPA, 1991)

18. Large Indian Civet (*Viverra zibetha*)

Local name: *Kastoori biralo* and *Nit biralu* (Nepali); *Kung* (Bhutia);



Large Indian Civet

***Saphiong* (Lepcha)**

Distribution: Tropical and sub-tropical forests of eastern Nepal, Sikkim, Assam, Arunachal Pradesh and South-Eastern countries. In Sikkim, it is found almost throughout the state at elevations upto 2100 m. Common at Khangchendzonga National Park.

Size: One of the biggest civets in the world. Head and body 75- 80 cm.; tail 42-45 cm.; weight 20-24 kg.

Description: It has a sturdy build with long head, long body and short stumpy legs. A crest of black hair runs down the center of the back. Coat is hoary grey with a yellowish tinge. Dark bands may be present on the chest, shoulder and the rump. The secretion from the gland is strong and distinctive.

Status: Schedule II (WPA, 1991)

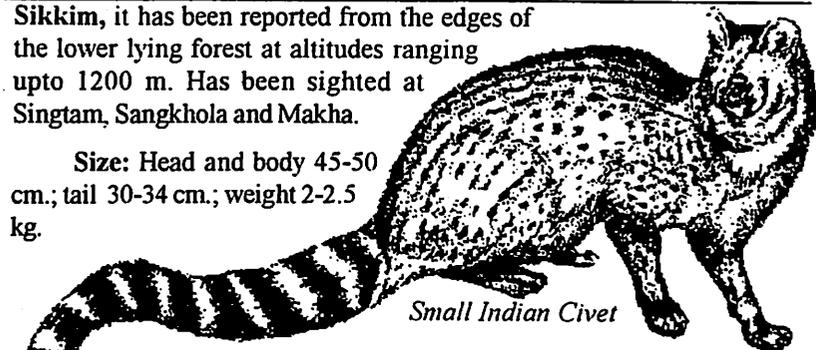
19. Small Indian Civet (*Viverricula indica*)

Local name: *Sayer* (Lepcha); *Bug-nyul* (Nepali)

Distribution: Eastern and Central Himalayas and adjoining areas. In

Sikkim, it has been reported from the edges of the lower lying forest at altitudes ranging upto 1200 m. Has been sighted at Singtam, Sangkhola and Makha.

Size: Head and body 45-50 cm.; tail 30-34 cm.; weight 2-2.5 kg.



Small Indian Civet

Description: It is a long bodied short-legged carnivore. Resembles domestic cat in appearance and movements but has a slimmer body and a thickly furred tail. Its ears are small and snout pointed. Lives a solitary existence, sleeping during the day and hunting at night.

Status: Schedule II (WPA, 1991)

20. Binturong or Bear-cat (*Arctictis binturong albifrons*)

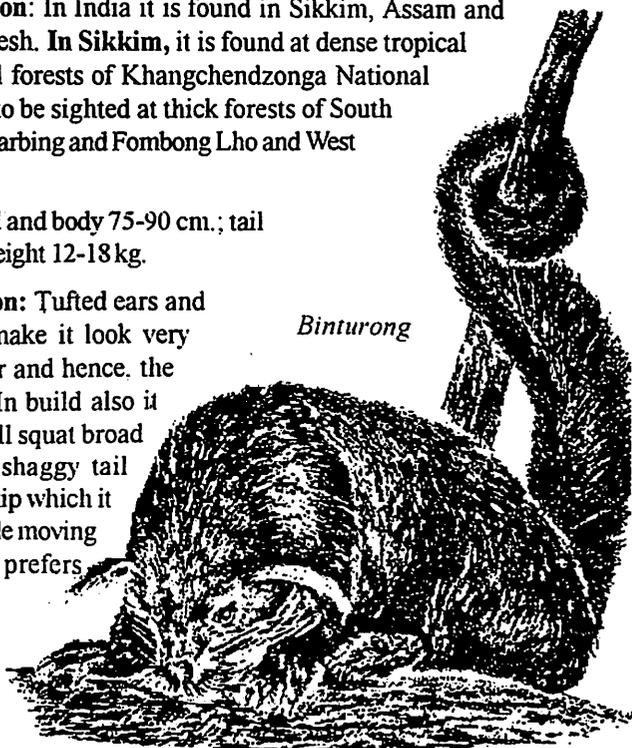
Local name: *Bhalu-biral* (Nepali)

Distribution: In India it is found in Sikkim, Assam and Arunachal Pradesh. In Sikkim, it is found at dense tropical and sub-tropical forests of Khangchendzonga National Park. Reported to be sighted at thick forests of South Sikkim Luing, Parbing and Fombong Lho and West Dentam also.

Size: Head and body 75-90 cm.; tail 65-70 cm.-110 weight 12-18 kg.

Description: Tufted ears and a shaggy coat make it look very much like a bear and hence, the name bear-cat. In build also it resembles a small squat broad bear. The long shaggy tail has a prehensile tip which it uses liberally while moving on the trees. It prefers living over trees.

Binturong



Status:
Schedule II
(WPA, 1991)

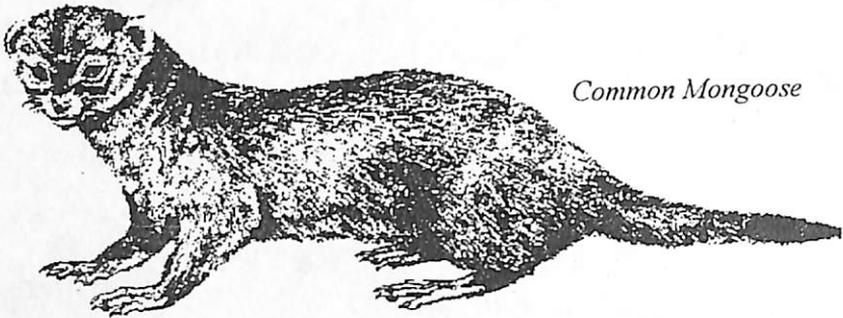


MONGOUSES

Mongoose: These are weasel-like animals that are native to Asia, Africa and southern Spain. An active hunter, it preys upon many small animals. They are good at killing snakes, even the poisonous ones like cobra. They live in small families in tunnels that they dig in the ground.

21. Common Mongoose (*Herpestes edwardsi nyula*)

Local name: *Nyauri moosa* (Nepali); *Sankeng* (Lepcha)



Common Mongoose

Distribution: North India. In Sikkim, at tropical forest edges, scrub jungles and cultivated areas.

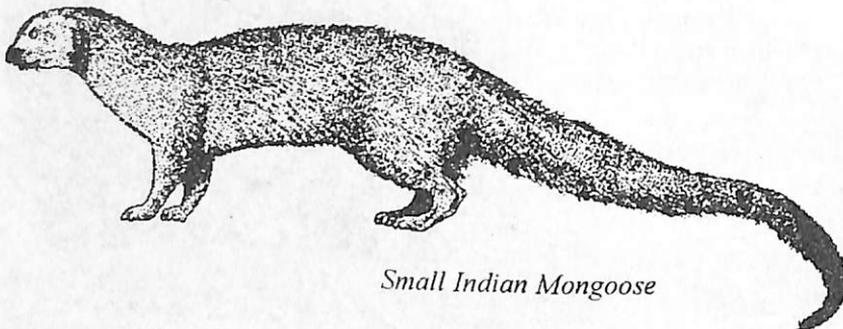
Size: Head and body 40-45 cm.; tail 35-40 cm.; weight 1.5 kg.

Description: A small tawny, yellowish-grey animal with no stripes on the sides of its neck. It prefers lower elevations and lives in open areas, scrublands and in and around cultivated areas. A versatile hunter and generally feeds upon birds, rodents and small reptiles.

Status: Schedule IV, (WPA, 1991)

22. Small Indian Mongoose (*Herpestes auropunctatus auropunctatus*)

Local name: *Nyauri Moosa* (Nepali); *Sankeng* (Lepcha)



Small Indian Mongoose



Distribution: On Himalayas from Afghanistan to Arunachal Pradesh and further east.

Size: Head and body 25-28 cm.; tail 20-22 cm.

Description: General colour olive brown with a golden hue hence, also known as Golden-speckled mongoose. Fur is soft and silky. It hunts during the day time as well as during the night.

Status: Schedule IV (WPA, 1991)

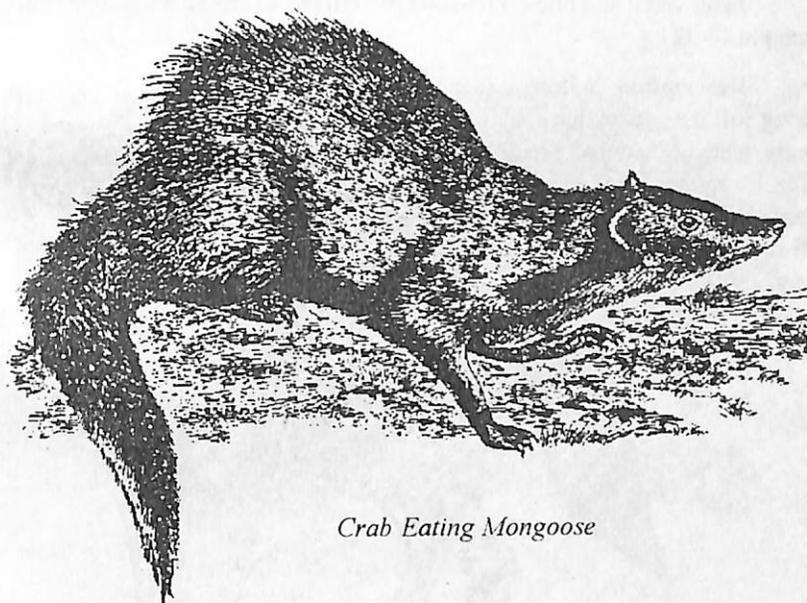
23. Crab-eating Mongoose (*Herpestes urva*)

Distribution: Nepal to Assam, eastwards to Myanmar, south China and the northern parts of Malaya. In Sikkim, is found near the hill-streams in South and East districts.

Size: Head and body 45-50 cm; tail 35-40 cm.; weight 2 kg.

Description: A large and powerfully built mongoose. Its long coarse fur and somewhat ragged coat is dusky iron grey. White stripe running along each side of the neck to the shoulders is distinctive.

Status: Schedule IV (WPA, 1991)



Crab Eating Mongoose



THE DOG FAMILY

Dogs: Wolves, Jackals, Foxes and Wild dogs together compose this family. They are very much alike in appearance and habit. They hunt in packs and how formidable they are can be gauged from the fact that often a tiger is chased and at times even killed by wild dogs. Jackals and Foxes are solitary hunters but are excellent survivors.

24. **Tibetan Wolf** (*Canis lupus chanko*)

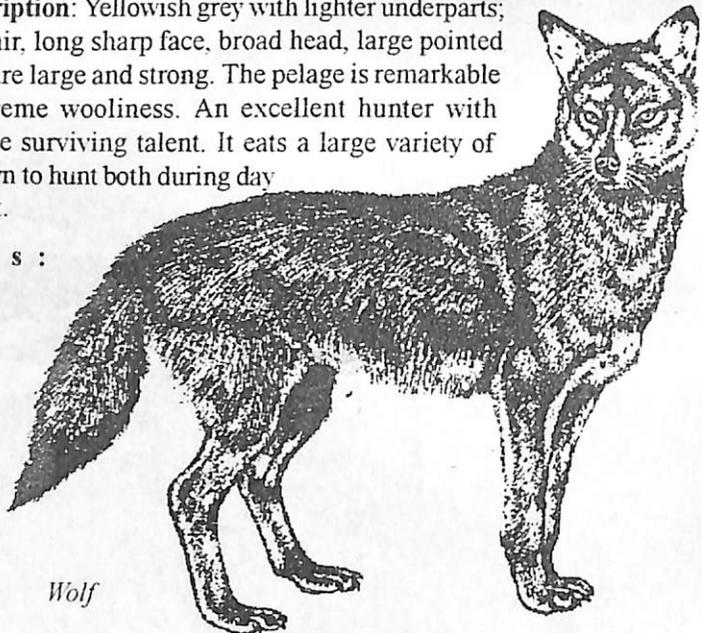
Local name: *Chanko, Changu* (Tibetan)

Distribution: North Sikkim and Tibet. In Sikkim, it is found in Yumthang valley, Lasher valley, Cho Lhamu, Lhonak valley and Shingba Rhododendron sacctuary in North Sikkim. Tamze, Kyongnosla Alpine Sanctuary, Pangolakha and Rachela in East; Maenam Wildlife Sanctuary in South and Lampokhari, Kasturi, Odar, Bhanjyang, Hilley and Barsey in West Sikkim. Two varieties namely the black and the grey have been reported of which the former is much bigger and has a thicker coat than the latter. (Sterndale). Tibetan wolf has been sighted at Bamchhona and Sesse la meadows and slopes and preys upon the kiang, yak and its calves. (Shah, Nita).

Size: Head and body 110-120 cm.; tail 40-45 cm.; height 70-75 cm.; weight 30-32 kg.

Description: Yellowish grey with lighter underparts; long soft hair, long sharp face, broad head, large pointed ears, teeth are large and strong. The pelage is remarkable for its extreme wooliness. An excellent hunter with unbelievable surviving talent. It eats a large variety of flesh. Known to hunt both during day and at night.

S t a t u s :



Wolf



Schedule I (WPA, 1991)

25. **Hill Fox or Red Fox** (*Vulpes vulpes montana*)

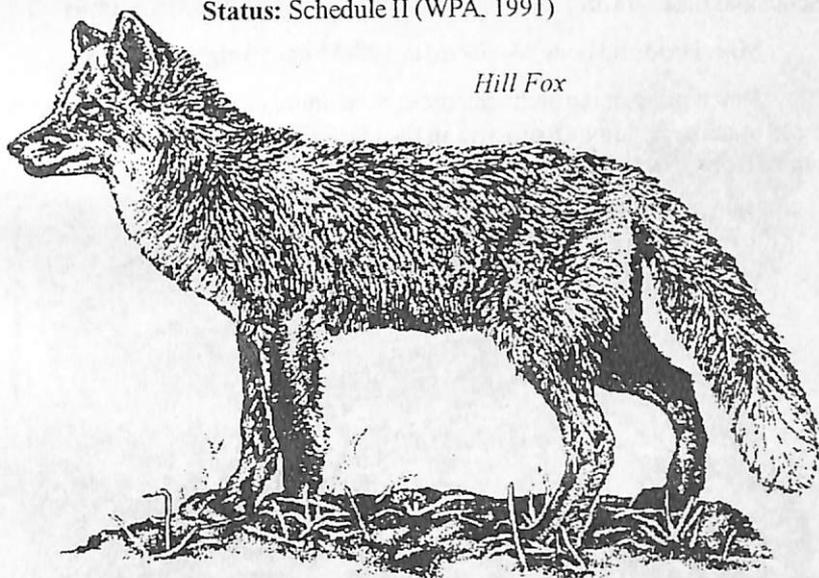
Local name: *Wamu* (Nepali)

Distribution: Ladakh, Lahul, Spiti, Kumaun and Sikkim. In Sikkim, it is Common and wide spread on the plateau occurring along the meadows and the slopes. Maximum sightings made along the contours at 5400 m near Gyam Chhona lake. Sightings also made near Changri meadow along the Chhomo Chu and near Oloten. Widespread in Khangchendzonga National Park.

Size: Head and body 60-70 cm.; tail 45-50 cm.; weight 6-7 kg.

Description: A richly coloured animal having a white tipped tail. The fur is beautiful during winters when long hair on the fur exceeds 2 inches, and the inner fur is fine and dense. They are quite at home in the sub-alpine scrub forests, pastures, rocky areas, cultivated lands and in the vicinity of water courses. Monogamous by nature.

Status: Schedule II (WPA, 1991)



**26. Tibetan Fox** (*Vulpes ferrilatus*)

Local name: *Iger* (Tibetan)

Distribution: Tibet, Nepal and Sikkim. In Sikkim, reported from Menphu (Katao) Chho Lhamu, Green lake in North Sikkim, Botang la, Doka la area in East Sikkim.

Size: About same as that of Hill-fox.

Description: The coat is pale fulvous with grizzled white or iron-grey sides. It has shorter ears than the Indian Fox and the fur is longer, thicker and softer.

Status: Schedule I (WPA, 1991)

27. Indian Fox (*Vulpes bengalensis*)

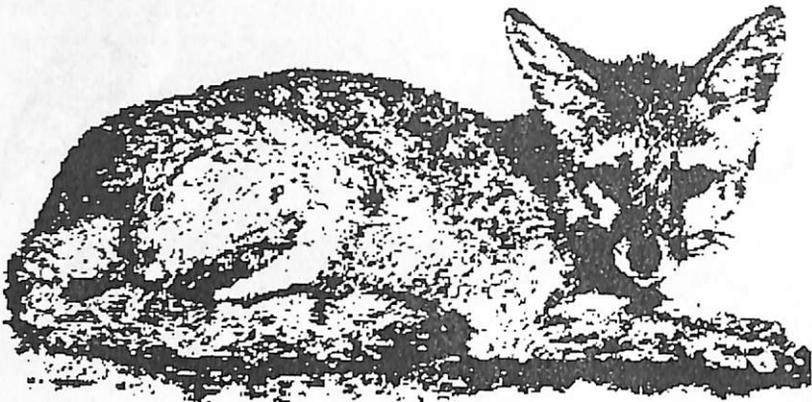
Local name: *Phyaro* (Nepali)

Distribution: Whole of India from lower Himalayas to Kanyakumari. In Sikkim, found at the edges of the forests at the tropical river valleys of South and East Sikkim.

Size: Head and body 45-60 cm; tail 25-35 cm.; weight about 2 kg.

Description: It is a pretty slender-limbed animal, smaller and slimmer in build than the Red fox. Distinctive in the black tip of its tail. The coat colour varies from grey to purer grey, contrasting with the rufous limb.

Status: Schedule II (WPA, 1991)



Indian Fox

**28. Indian Wild Dog** (*Cuon alpinus primavus* and *C. a. laniger*?)

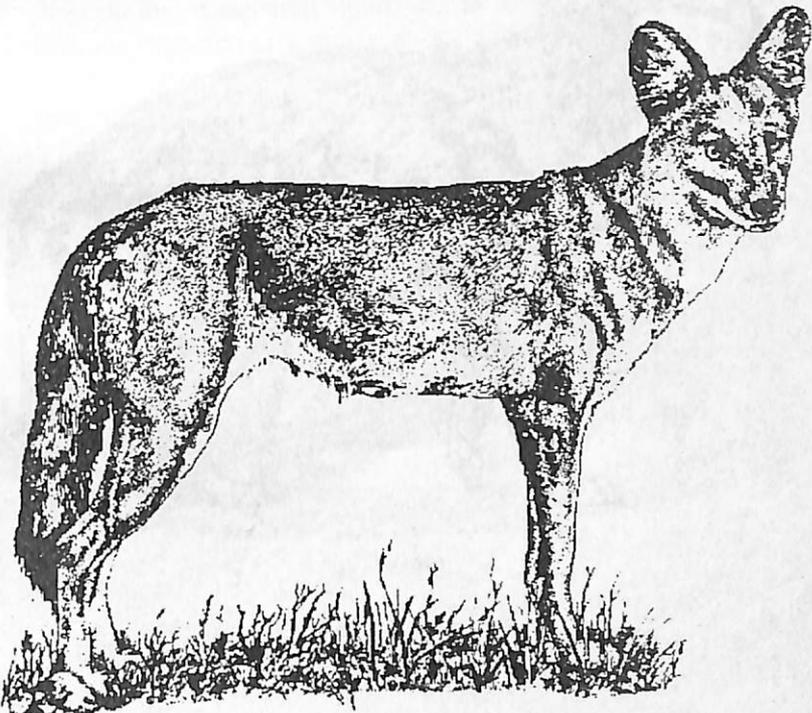
Local name: *Sidda ki* and *Hazee* (Tibetan); *Paoho* (Bhutia); *Suhu-tum* (Lepcha); *Buanso*, *Bhoonsa* and *Jungli Kukur* (Nepali)

Distribution: Central and Eastern Asia. In many states of India. In Sikkim, Lepchas claim that two sub species - the Himalayan (deeper red coat) and the Trans-Himalayan (paler coat) are found in the State. No studies have been conducted to identify their relative distribution in Sikkim. Population is high in West Sikkim (compared to East Sikkim) particularly in the Khangchendzonga National Park. Sightings have been made at Cho Lhamu, Pangolakha, Tshimthang, Pangdin, Kangarten and Rangit valley.

Size: Head and body 90-95 cm.; tail 40-43 cm.; 43-55 cm. tall; weight 20-22 kg.

Description: In appearance it is similar to domestic dog but differs in having a long body and limbs. The ears are rounded at the tip and the tail is quite bushy. The coat changes tone with season.

Status: Schedule II (WPA, 1991)



Indian Wild Dog

**29. Jackal** (*Canis aureus*)

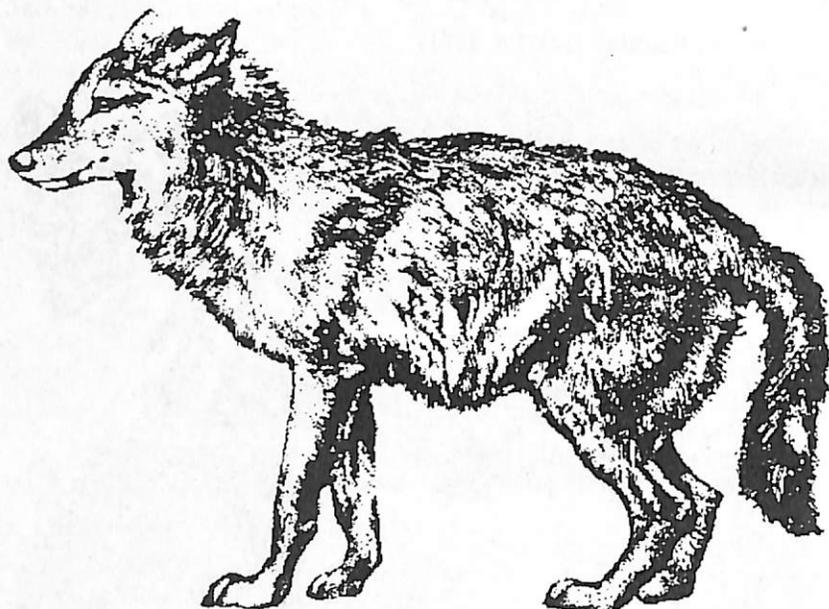
Local name: *Shial, Syal* (Nepali); *Amu* (Bhutia)

Distribution: Throughout India and Sri Lanka. In Sikkim, it is common all over the state. Two sub-species, namely the Northern and the Himalayan, are found with the former preferring the lower elevations upto 1500 m and the latter dwelling at elevations upto 3600 m also.

Size: Head and body 60-75 cm.; tail 20-27 cm.; shoulder height 38-43 cm.; weight 8-11 kg.

Description: Very well known for its long drawn, eerie howling at dusk or just before dawn. Coat is a mixture of black and white washed with buff about the shoulders, ears and legs. The Northern variety has a blackish tinge. Himalayan animals have more buff on their coats and a deeper tan on ears and legs.

Status: Schedule II (WPA, 1991).



Jackal



THE BEARS AND THE PANDA

Pandas: A delightful creature of this region, it resembles a bear because of its short legs and tail, small rounded ears and large paws. It is most active at night when it feeds on fruits, bamboos and grasses. Occasionally, they eat bird-eggs, small birds or mice. It generally moves about in small family groups.

30. Red Panda (*Ailurus fulgens fulgens*)

Local name: *Sankam* (Lepcha); *Wakdonga* (Bhutia); *Hobre* and *Nigalva Pongwa* (Nepali)

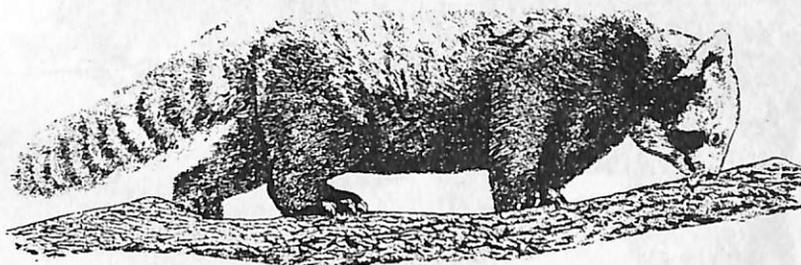
Distribution: Himalayas from eastern Nepal and Sikkim eastwards to upper Myanmar and South China. In Sikkim, it is distributed in the Lachung Valley, Lachen, Khangchendzonga National Park, Tong RF in North; Tamze, Kyongnosla Alpine Sanctuary, Zuluk, Phadamchen, Pangolakha, Fambong Lho Wildlife Sanctuary in East; Maenam Wildlife Sanctuary in South; and Hilley Barsey, Okharey, Rigdee and Chiwabhanjyang in West Sikkim. Population is low.

Size: Head and body 60 cm.; tail 40 cm.; weight 3-4 kg.

Description: A beautiful animal can be easily distinguished by its rounded head, large erect ears, stumpy muzzle and short hairy-soled legs. Its coat colour is chestnut with a ringed long, bushy tail. The face and lower lips are white. A red vertical stripe is present just above the eye to the nape.

Status: Schedule I (WPA, 1991)

Bears: It is probably because they are so well known that bears are the



Red Panda



subject of so many legends and folklore. Though they are very powerful and courageous (Himalayan Black bear has been known to scare away tigers and leopards from their kills), they are generally inoffensive and anxious to avoid confrontation. They seldom attack human beings unless they are first cornered and provoked. They are a heavily built animal with a large head, short legs and tail, small eyes and small rounded ears. They are omnivores and feed upon a variety of materials such as nuts, fruits, fleshy roots, berries, grasses, insects and even flesh.

31. Brown Bear (*Ursus arctos isabellina*)

Local name: *Dub* and *Rato Bhalu* (Nepali); *Suna* (Lepcha).

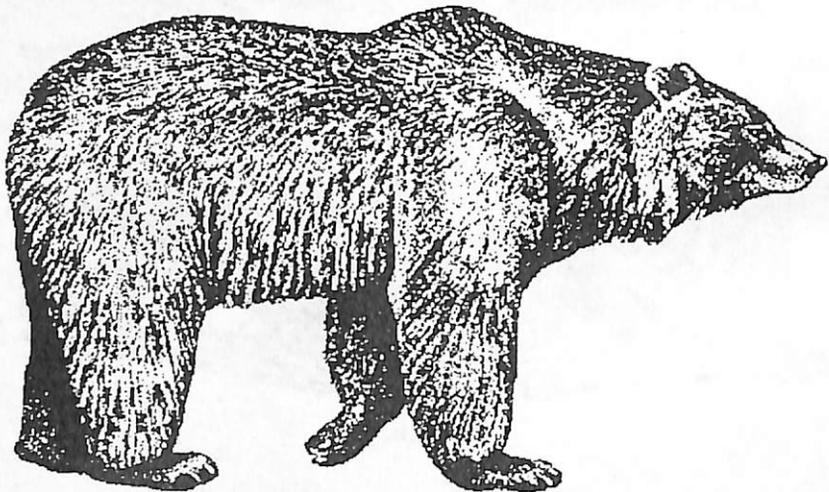
Distribution: North-western and Central Himalayas and Bhutan. In Sikkim, reported from Phuni in Lachung and Green lake. Tracks have been found in Lampokhari and the plateau.

Size: Head and body 190-230 cm. and weighs about 160 kg. (Females are about 30 cm. smaller).

Description: It is heavily built and as its name implies, has a rich brown coat. The coat colour and texture varies with season. Haunts the bare open peaks in the upper reaches of the Himalayas above the tree-line.

Status: Schedule I (WPA, 1991)

32. Himalayan Black bear (*Selenarctos thibetanus laniger*)



Local name: *Dom* (Bhutia); *Sanar* (Nepali)

Brown Bear

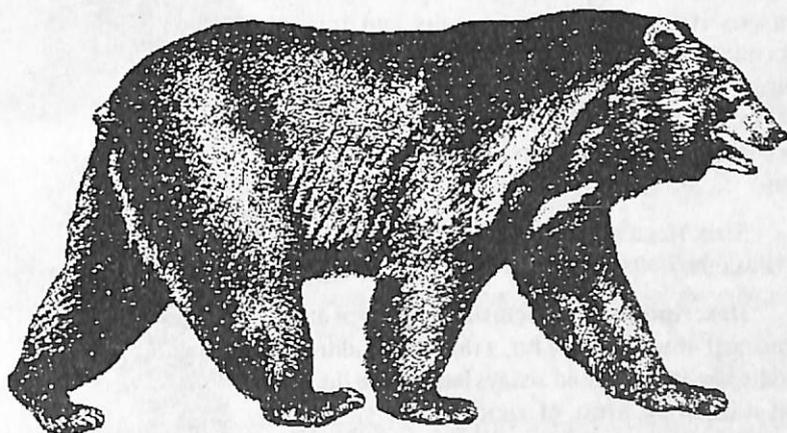


Distribution: In India it is found in Himalayas and Assam. **In Sikkim,** it is found throughout the state at elevations ranging between 1200-3600 m. The belts of forests below Chewabhanjyang and Uttarey and all forests below Dzongri are extremely ideal for Black bear. Can be observed at Nibe, Nalung and Tinjurey from June to August. Population is high. Two varieties namely Sunauli (having golden yellow teeth) and Rupauli (having less yellowish teeth) are reported to exist in the state.

Size: Head and body about 150 cm.; weight 100-120 kg. with females being a little smaller.

Description: It has a short, smooth black coat and black claws. It has a characteristic white V-shaped mark on the chest and a white chin. Many are killed for bile while they hibernate during winters.

Status: Schedule II (WPA, 1991)



Himalayan Black Bear



THE WEASEL FAMILY

The weasel family includes Otters, Martens, Weasels, Badgers and some others like Pole cats and Ferrets which are not found in Sikkim. Most members of this family are renowned predators. In courage and boldness they are matchless.

Otters: If all the land animals should hold a swimming and diving contest the Otter would assuredly be a candidate for championship honour. It is very much at home in water, swimming, diving, rising and turning with astounding quickness. On land also it is almost as active, often running long distances between one stream and the other. It eats fish and other water creatures but on land also it is a formidable hunter.

33. Common Otter (*Lutra lutra monticola* and *Lutra lutra aurobrunnea*)

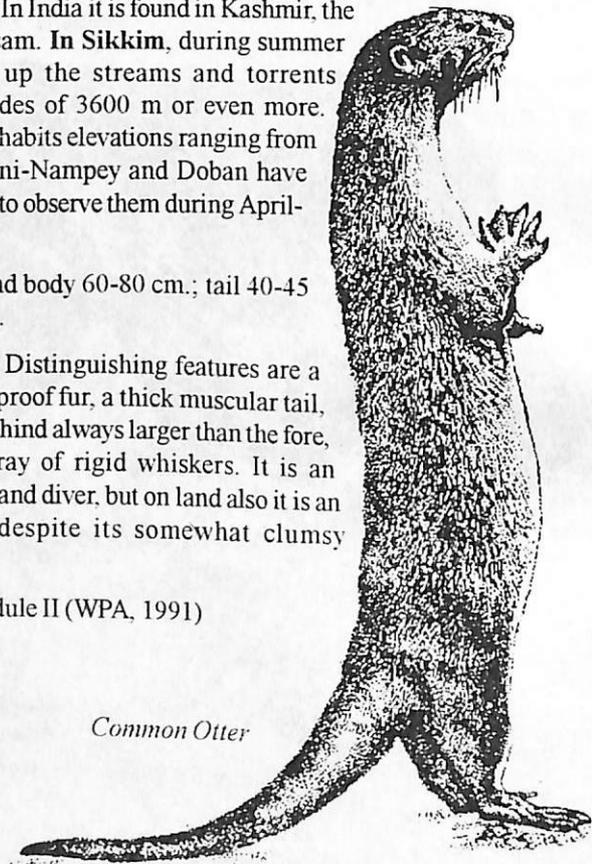
Local name: *Ote* (Nepali); *Suriam Lho* (Lepcha)

Distribution: In India it is found in Kashmir, the Himalayas and Assam. **In Sikkim**, during summer seasons it moves up the streams and torrents ascending to altitudes of 3600 m or even more. During winters it inhabits elevations ranging from 600 to 1200 m. Rani-Nampey and Doban have been recommended to observe them during April-May.

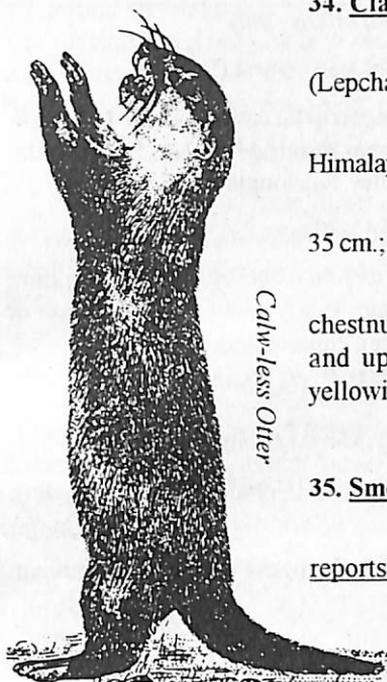
Size: Head and body 60-80 cm.; tail 40-45 cm.; weight 7-10 kg.

Description: Distinguishing features are a close coat of water proof fur, a thick muscular tail, paddle like feet, the hind always larger than the fore, and a bristling array of rigid whiskers. It is an excellent swimmer and diver, but on land also it is an effective hunter despite its somewhat clumsy movements.

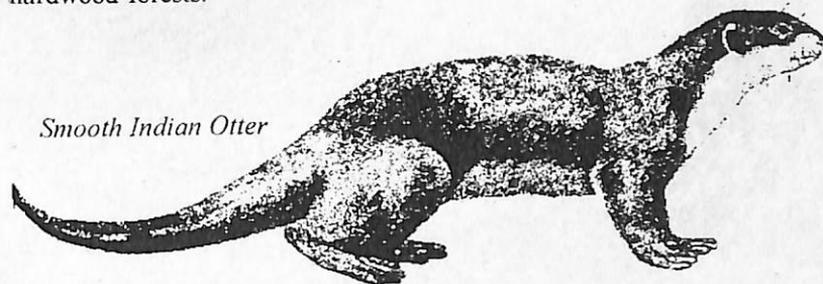
Status: Schedule II (WPA, 1991)



Common Otter



Claw-less Otter

34. Claw-less Otter (*Aonyx cinerea concolor*)**Local name:** *Chusam* (Bhutia); *Suriam* (Lepcha)**Distribution:** Throughout the Himalayas, also in lower Bengal and in Myanmar.**Size:** Head and body 45-55 cm.; tail 25-35 cm.; weight 3-6 kg.**Description:** Above earthy brown or chestnut brown; lips, sides of head, chin throat and upper part of breast white, tinged with yellowish grey.**Status:** Schedule I (WPA, 1991)**35. Smooth Indian Otter** (*Lutra perspicillata*)**(Included on the basis of unconfirmed reports)****Local name:** *Ote* (Nepali)**Distribution:** India, from Himalayas to extreme south. Myanmar, Indo-China and Malaya.**Size:** Head and body 65-75 cm.; tail 40-45 cm.; weight 7-11 kg.**Description:** Heavily built animal about the size of the Common Otter. Distinguished by smooth sleek coat. Colour, blackish to rufous chocolate brown, sometimes sandy to tawny brown.**Status:** Schedule II (WPA, 1991)**Martens:** These are weasel-like animals differing mainly in being largely arboreal. They hunt hares, pikas, squirrels and other rodents with skill and determination. They prefer living in old coniferous and mixed coniferous and hardwood forests.

Smooth Indian Otter

**36. Beech or Stone Marten** (*Martes foina intermedia*)

Local name: *Dhunge malsampro* (Nepali); *Sarik* (Lepcha)

Distribution: Kashmir and the Himalayas as far east as Sikkim. In Sikkim it is rare but widely distributed at elevations ranging between 1800-3600m amsl. Sighted at Cho Lhamu, Lhonak valley, Kishongla and Samthong.

Size: Head and body 25-45 cm.; tail 15-20 cm..

Description: A graceful slender creature, its build suggests a mixture of cat and squirrel. The colour of its upper side is almost uniform drab or slaty brown. It preys on any creature it can capture and overcome.

Status: Schedule II (WPA, 1991)

37. Himalayan Yellow-throated Marten (*Martes flavigula flavigula*)

Local name: *Malsampro* and *Tuturala* (Nepali); *Sakku* (Lepcha); *Shingsam* and *Huniah/Umiah* (Bhutia)

Distribution: Himalayas and Assam hill ranges extending to Myanmar,



Beech or Stone Marten



China and the Malay countries. In Sikkim, it is found almost throughout the state at elevations ranging between 1200 to 2700 m. They live in forest and always remain below the treeline. Occasionally seen at Gangtok also. Sightings can be made in the pastures of Yumthang and Yumesamdong also.

Size: Head and body 45-60 cm.; tail 38-43 cm.

Description: A larger animal than the Stone Marten. The colour of the coat is deep brown. Yellow of the throat is emphasized by dark bands running down the nape. They hunt both by day and night. Are very much at home on trees and effortlessly jump from branch to branch. They love sweet food including honey.

Status: Schedule II (WPA, 1991)

Weasels: Weasel is one of the several small animals with long, muscular bodies and have a reputation for being courageous and bold. Another weasel trait is stealth which allows it to sneak up on prey. In India they are rather unfamiliar. We in Sikkim are lucky to have their as many as four varieties.



Himalayan Yellow-throated Marten



38. Himalayan Weasel (*Mustela sibirica subhemachalana* and *M. sibirica canigula*)

Local name: *Zimiong* (Bhutia); *Sang-king* (Lepcha)

Distribution: Nepal hills, Sikkim and Tibet. **In Sikkim**, it is spread over temperate and alpine forests and in the open grass and scrub above the tree-line at altitudes ranging from 1500 to 4800 m. Population average.

Size: Head and body 30-35 cm.; tail 17-18 cm. (with hair).

Description: Colour varying from bright foxy red to dark chocolate. No sharp contrast between upper and under parts. The two sub-species differ in having dark muzzle (*subhemachalana*) and light muzzle (*canigula*). An accomplished hunter it eats whatever it can catch.

Status: Schedule II (WPA, 1991)

39. Yellow-bellied Weasel (*Mustela kathiah kathiah*)

Local name: *Kathia nyal* (Nepali)

Distribution: Nepal, Sikkim and Bhutan. **In Sikkim**, being a forest dweller, it is quite at home at sub-tropical and temperate elevations.

Size: Head and body 22-27 cm.; tail 11-12 cm..

Description: Like the Himalayan Weasel, it has dark paws but is distinctive in the sharp contrast between the dark chocolate brown of its upper parts and the sharply defined rich yellow of the underparts.

Status: Schedule II (WPA, 1991)

40. Stripe-backed Weasel (*Mustela strigidorsa*)

Local name: *Zimiong* (Bhutia); *Sang-king* (Lepcha).

Distribution: Sikkim and adjoining areas. **In Sikkim**, found along with the yellow-bellied weasel in temperate forests ranging between 1200-2100 m. Population low.

Size: Head and body 25-30 cm.; tail 11-12 cm..

Description: Similar to the other two species described above. Distinctive in the white or whitish streak along its back and belly. A bold and courageous hunter, it very often preys on animals much bigger than itself.

Status: Schedule II. (WPA, 1991)

41. Pale Weasel (*Mustela altaica*)

(Included on the basis of unconfirmed reports)



Distribution: Generally distributed in the upper levels of Himalayas. In Sikkim, it is expected at elevations ranging between 2100 to 4000 m.

Size: Head and body 25-30 cm.; tail 10-12 cm..

Description: Pale yellow brown; upper lip, chin and underparts yellowish-white. Tail cylindrical, unicolour. Paws are white.

Status: Schedule II (1991)

Badgers: These are solid, heavy bodied animals with short tails, short legs and broad flat heads. Their loose tough, skin powerful jaws and the foul smell from the scent glands make them dangerous. They are known for their courage and fighting ability. One badger is a match for several dogs. They eat all kinds of food but feed largely on squirrels, marmots and other small burrowing animals.

42. **Hog-Badger** (*Arctonyx collaris collaris*)

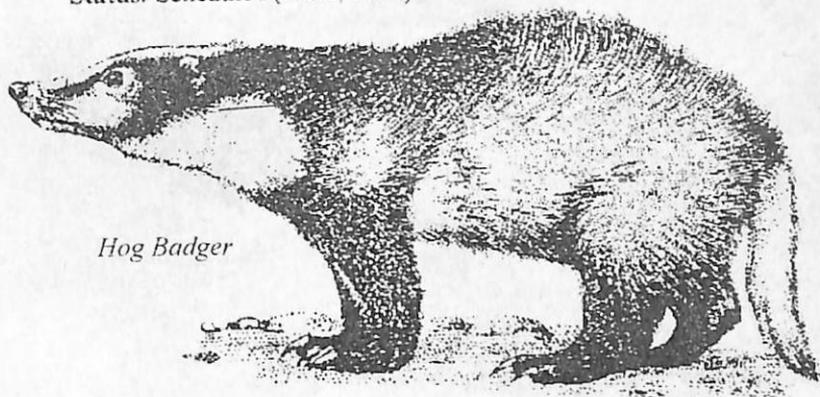
Local name: *Tampha* (Tibetan)

Distribution: Nepal, Sikkim, Assam extending upto Western Yunnan. In Sikkim, its distribution so far not ascertained. Probably restricted to tropical and sub-tropical regions.

Size: From snout to the root of tail, 55-70 cm.; tail 10-20 cm.; height at the rump 26-28 cm..

Description: Hair of the body rough, bristly and straggling. Head, throat and breast yellowish white; on the upper part this colour forms a broad regularly defined band from the snout to the occiput. Tail is short and covered with rough hair. Nocturnal and omnivore. Known to feed upon small mammals, reptiles, fruits, plantains, worms and shells. Gait is heavy, slow and painful.

Status: Schedule I (WPA, 1991)



**43. Burmese Ferret-Badger** (*Melogale personata*)

Local name: *Oker* (Nepali)

Distribution: From Nepal eastwards to Sikkim, Assam, Myanmar and Thailand. In Sikkim, its distribution so far not ascertained. Range limited to tropical and sub-tropical forests of the state.

Size: Head and body 42-47 cm.; tail 22-23 cm.

Description: In general tone the colouration varies from deep purplish grey to shades of brown. The bleached tips of the longer hairs give the coat a distinctly silvery tone. Underparts are yellowish or buff white.

Status: Schedule II (WPA, 1991)



Chinese Ferret - Badger



INSECTIVORES

Moles: Common name for small, burrowing mammals characterized by a pointed snout, rudimentary eyes, soft, thick, velvety fur and long powerful claws on the fore limbs. They love eating earthworms.

44. Eastern Mole or Indian Short-tailed Mole (*Talpa micrura micrura*)

Local name: *Pariam* (Lepcha); *Biyu-kantyen* (Bhutia)

Distribution: Eastern Himalayan Range. In Sikkim, found at altitudes ranging between 1500 to 2400 m.

Size: Length 10-12 cm.

Description: Velvety black, with greyish sheen in certain lights; snout nude; practically blind; feet are fleshy white; tail very small (0.5 cm.). Feeds on earthworms, snails, small insects, frogs and even small birds.

45. Long-tailed Mole (*Talpa micrura macrora*)

Local name: *Pariam* (Lepcha)

Distribution: Sikkim. At altitudes ranging between 1500 to 2400 m.

Size: Head and body 10-12 cm.; tail 3 cm.

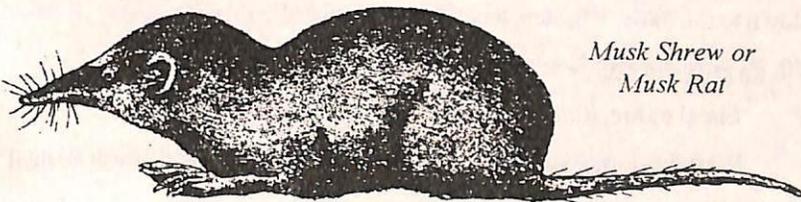
Description: Deep slaty blue with a whitish or hoary gloss; shimmering when wet. The tail is covered with soft hair. Lives principally on earth-worm, snails and small insects.

Shrew: Most of the shrews are little known to us. They are tiny creatures, and, when we do get a glimpse of them, we may mistake them for mice or rats. Enormous appetite, great courage and pugnacity are typical traits of these little animals. They move at high speed, sleep little, and have a brief life. They feed mostly on insects but other food is also taken as well.

46. Musk Shrew or Musk Rat (*Suncus murinus caeruleus*)

Local name: *Chachunder* (Nepali)

Distribution: India and Sri Lanka. In Sikkim, it is found at the tropical and sub-tropical regions of the state.



*Musk Shrew or
Musk Rat*



Size: Head and body 15-17 cm. with a 10 cm. tail.

Description: Bluish grey fur. In semi-darkness its fur produces almost luminous effect. Naked parts flesh coloured. Despite poor eye-sight it has acquired a reputation as a destroyer of cockroaches and other house vermin. Can be trained to accept insects offered by hands. It will immediately kill a large rat placed in the same cage with it.

47. **Mouse-Coloured Shrew** (*Suncus murinus griffithi*)

Local name: *Chachunder* (Nepali)

Distribution: China, Myanmar and Malayan countries extending to Bengal, Assam and Southern India. **In Sikkim**, found at tropical and sub-tropical regions of the state.

Size: Head and body-length about 15 cm.; tail measuring 8 cm..

Description: Brownish grey above, paler beneath; fur coarser and longer than that of Musk shrew. Ears are larger. Feet and tail flesh coloured. Insects form their chief diet and are as ferocious as the Musk shrew.

48. **Grey Shrew** (*Crocidura attenuata rubricosa*)

Distribution: Jammu & Kashmir, Punjab, Uttar Pradesh, Sikkim, Bhutan and Darjeeling. **In Sikkim**, found at sub-tropical and temperate regions of the state.

Size: Total length 6.5-7 cm. including a 4 cm. long tail.

Description: A small shrew. Distinguished by its feet which are clad with fur down to the nails. Ears are large exposed; colour a sordid or brownish-slaty blue extending to clad extremities. Mostly found in water rich areas.

49. **Hairy-footed Shrew** (*Suncus murinus soccatus*)

Distribution: West Bengal, Sikkim, Arunachal Pradesh, Assam and other North-Eastern states. **In Sikkim**, found at sub-tropical and temperate regions of the state.

Size: Head and body 7.5-8 cm.; tail 4.8-5 cm.

Description: General colour uniform brownish slaty-blue. Fur thick and long, over 8 mm in length. Distinguished by its feet that are clad with fur down to the nails. It prefers localities rich in water.

50. **Pygmy Shrew** (*Suncus etruscus pygmaeoides*)

Local name: *Rato chachunder* (Nepali)

Distribution: Assam, Meghalaya, Sikkim, Bhutan and North Bengal.



In Sikkim restricted to sub-tropical and temperate regions of the state.

Size: Head and body 6-6.5 cm.; tail 6-6.5 cm..

Description: Differentiated from other shrew by its tail which is cylindrical and not tapering. Fur is deep rusty brown. The tail is slender, almost naked and compressed at the tip.

51. Hodgson's Brown-toothed Shrew (*Soriculus caudatus caudatus*)

Distribution: Nepal, Sikkim, West Bengal, Manipur and Uttar Pradesh.

In Sikkim, found at sub-tropical and temperate regions of the state.

Size: Very small. Head and body 4-4.5 cm.; tail 2.2-2.5 cm.

Description: Brown with a slight tinge of chestnut; feet and tail furred; claws white. Found in fields and the trees around. Rarely enters the house. Partial towards earthworm and snails.

52. Sikkim Large-clawed Shrew (*Soriculus nigrescens nigrescens*)

Distribution: Sikkim and Nepal.

Size: Head and body 6.5-7 cm.; tail 2.8-3 cm.

Description: Above dark-blackish or blackish-brown slightly tinged rufescent and with a silvery cast in certain lights; beneath greyish black; feet and claws pale; tail, straight, slender and naked.

53. Himalayan Water-Shrew (*Chimmarogale platycephala himalayica*)

Local name: *Ooong lagniya* (Lepcha); *Choopitsi* (Bhutia)

Distribution: Sikkim and Darjeeling.

Size: Head and body 13-15 cm.; tail about 8-9 cm.

Description: Fur dark-brown above, paler beneath; rusty brown on lower part of the throat and middle of belly; ears very small, hairy and concealed; tail long, slender, fringed with stiff whitish hair. It lives around small streams and marshes and is an excellent swimmer. It feeds on water insects and crustaceans and at times even frogs. It prefers clear, still water but makes its way up running streams and ditches expertly and occasionally wanders away into fields and has been found in houses and barns.

54. Szechuan Water-Shrew (*Nectogale elegans sikhimensis*)

Distribution: North Bengal, Nepal, Sikkim and Bhutan.

Size: Head and body 10-11 cm.; tail 9-10 cm.

Description: Large soles on the feet are its special characteristic. Fur is



soft and slaty grey in colour. Tail is stout, relatively longer and is compressed. Ears are concealed and without a conch. Feet are palmated and form sucking discs.

Tree Shrew: Natives of south eastern Asia and the neighbouring larger islands, are among the most primitive of all mammals. They climb trees like squirrels and look like them, right down to the long, bushy tail. In fact, their Lepcha name *Kalli-tang-zhing* has been derived from the word *Ka-li* meaning a squirrel. They are a simple little creature, never still, always seeking their food.



Tree Shrew

55. **Pegu Tree-Shrew** (*Tupaia glis lepcha*)

Local name: *Kalli-tang-zhing* (Lepcha); *Rukh Chachunder* (Nepali)

Distribution: Sikkim, Darjeeling, Assam and Arunachal Pradesh. In Sikkim, it is widespread upto the elevations of 1800 m. Has been sighted at and near Gangtok also.

Size: Head and body about 17-18 cm.; tail 14-15 cm.

Description: General hue a dusty greenish-brown, the hair being ringed brown and yellow. Lower parts the same but lighter and with a pale buff line; a stripe from the throat to the vent, broadest between the forearms; ears and soles livid red. Frequent altitudes from 900 to 1800 m. Feeds upon insects, birds and mice.



THE BATS

Sikkim is the home of more than forty species of Bats!!! It is here we find the largest (Flying Fox) and perhaps the smallest (Little Bamboo Bat) bats of the world. Further, they come in such enormous variety that it is easier to say what they do not have than what they have. Bats are built for flight. They are the only mammals that have real wings. Their diet is not limited to fruit or insect, as is generally believed. There are bats that eat meat, bats that go fishing, bats that draw the nectar from night-blooming flowers and vampire bats that subsist on the blood they suck from the veins of birds and other animals. They are supersensitive to sound waves that helps them determine their relation at all times to other objects whether they be fixed or moving.

56. Flying Fox (*Pteropus giganteus giganteus*)

Local name: *Chamera* (Nepali)

Distribution: India, Sri Lanka, Myanmar. **In Sikkim**, reported from Melli, Rangpo, Singtam, Tong, Chakung and Ranipool and perhaps other tropical regions of the state.

Size: Head and body 21-23 cm.; wing span about 1.2 m.

Description: The head of this creature is reddish-brown with a darker, blackish snout. Hind neck and shoulders are pale brownish yellow to straw-coloured. The dorsal side of the body is dark brown or black. The ventral surface is yellowish brown.

Status: Schedule V (WPA, 1991)



Indian Flying Fox

57. Fulvous Fruit Bat (*Rousettus leschenaulti leschenaulti*)

Distribution: India and South-Eastern Asia. **In Sikkim**, found throughout the state at elevations upto 2250m.

Size: Head and body 12-13 cm; tail 1.8-2 cm.; forearm 7-8 cm.



Description: It is medium sized with uniform light-brown or yellowish coloured coat. Older males have dull grey flanks. The bats have an odour like that of a fermented fruit.

Status: Schedule V (WPA, 1991)

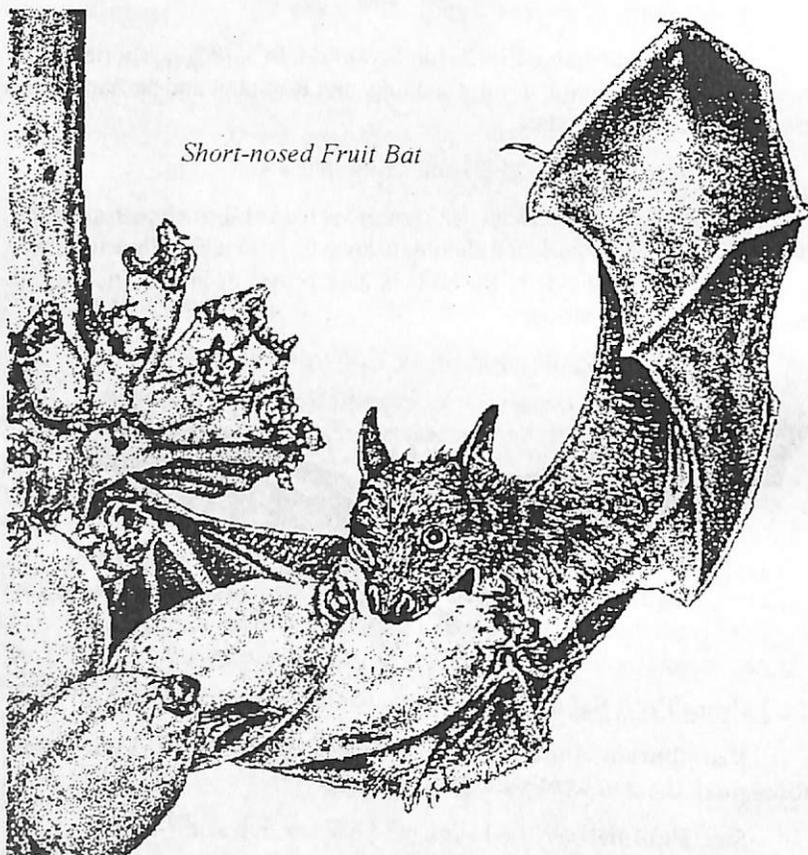
58. **Short-Nosed Fruit Bat** (*Cynopterus sphinx sphinx*)

Distribution in Sikkim: Found up to elevations of 2000 m, throughout the state.

Size: Head and body 10-12 cm.; tail 1 cm.; wing span 45-55 cm.

Description: Has distinctive white margined almost naked ears and divergent nostrils. The body may be ferruginous or yellow or dull grey brown in colour. Males often have a bright reddish brown collar.

Status: Schedule V (WPA, 1991)



**59. Cave Fruit Bat (*Eonycteris spelaea*)**

Distribution in Sikkim: Found up to elevations of 2000 m, throughout the state.

Size: Head and body 10-12 cm.; tail 1.25 cm.

Description: It has a long head with narrow, cylindrical muzzle. Nostrils and lips are notched. Tongue is very long and pointed. Ears are conical with rounded tips. Fur is dark brown in colour and thinly spread covering only as far as the inner corners of the eye, leaving rest of the face naked.

Status: Schedule V (WPA, 1991)

60. Niphan's Fruit Bat (*Megaerops niphanae*)

Distribution: Darjeeling, Sikkim and other North-Eastern States.

Size: Head and body 10-11 cm..

Description: Looks much like short-nosed fruit Bat, but nostrils are more sub-tubular, no external tail; ears without white edge. Colour dusky brown above; light greyish brown below.

61. Blanford's Fruit Bat (*Sphaerias blanfordi*)

Distribution: Nepal, Darjeeling, Sikkim, Bhutan and Arunachal Pradesh.

Size: Head and body 7-7.5 cm.

Description: A small fruit-bat without external tail. Dull greyish brown above, a shade paler below. Fur consists of soft, fine, dense hairs.

62. Greater Long-tongued Fruit Bat (*Macroglossus sobrinus sobrinus*)

Distribution: Darjeeling, Sikkim and Assam.

Size: Head and body 6-6.5 cm.

Description: One of the smallest fruitbats of this region with very long head; pelage longish and light reddish brown, chest more brown; tail rod like and short. Tongue very long with feathery tip.

63. Naked-bellied Tomb Bat (*Taphozous nudiventris kachhensis*)

Distribution: India generally.

Size: Head and body 13-15 cm.; tail 2.5 cm.; wing span 37-40 cm.

Description: Bat without facial membrane; with short bulldog like head. Male blackish-grey. Gular sac is absent in both the sexes. Muzzle and throat naked. The flight is swift.



woody black with a silvery grizzle, or greyish black or rich chestnut brown. Hibernates during winter.

67. **Pearson's Leaf-Bat** (*Rhinolophus pearsoni*)

Distribution: Lower Himalayan range from Sikkim to Himachal Pradesh.

Size: Head and body 7-8 cm.; wing span 25-27 cm.

Description: Colour above dark brown with a slight shade of chestnut; underneath with a sooty cast; fur very long, dense and soft; ears distinct with an additional rounded lobe below. Easy to be recognized by the great length of fur.

68. **Rufous Horse-shoe Bat** (*Rhinolophus rouxi rouxi*)

Distribution: All over India.

Size: Head and body 5-7 cm.; tail 2.5 cm.; wing span 30-32 cm.

Description: Ears are large and pointed; tips of upper nose-leaf triangular reaching above the base of the ears. Canines very large. Short and crisp fur ranges in colour from smoky brown to reddish brown or sometimes even golden rufous. Underparts paler.

69. **Trefoil Horse-shoe Bat** (*Rhinolophus trifoliatius trifoliatius*)

Distribution: Himalayas, Assam and adjoining areas.

Size: Head and body 3-4 cm.

Description: Medium-sized horse-shoe bat with broad horse-shoe and trifoliate sella. Frontal sac is absent. Extreme tip of the tail free.

70. **Least Horse-shoe Bat** (*Rhinolophus pusillus blythi*)

Distribution: North Bengal, Nepal, Sikkim, Assam, Meghalaya.

Size: Head and body 6-7 cm.

Description: Small Horse-shoe bat with horizontal base of sella arched and equal in width to vertical part.

71. **Little Indian Horse-shoe Bat** (*Rhinolophus lepidus lepidus*)

Distribution: All over India.

Size: Head and body 7-8 cm.

Description: Very much similar to Least Horse-shoe bat but slightly larger (forearm around 40 mm.) with relatively longer ears and larger nose-leaf.



Indian False Vampire (*Megaderma lyra*)

Distribution: All over India.

Size: Head and body 8-9 cm.; tail absent; wing span 37-40 cm.

Description: A dark ash grey or slaty grey bat; paler below with large rounded ears united for more than one-third their length. The nose-leaf has a truncated appearance. Feeds on insects, small mammals (including bats) and reptiles.

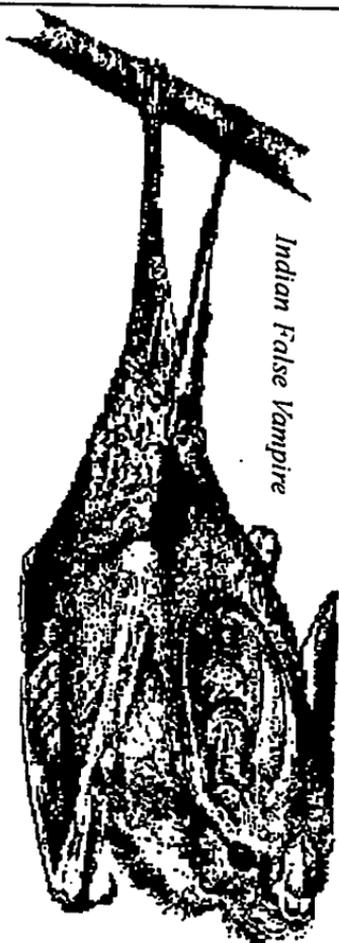
65. Intermediate Horse-shoe Bat (*Rhinolophus affinis himalayanus*)

Distribution: India and Indo-China.

Size: Head and body 7-8 cm.

Description: A medium sized Horse-shoe Bat (forearm around 50 mm) with moderate ears and nose-leaf; frontal sac is absent.

66. Great Eastern Horse-shoe Bat (*Rhinolophus luctus perniger*)



Indian False Vampire

Distribution: Nepal, Sikkim and Meghalaya.

Size: Head and body 9-10 cm.; tail 4-5 cm.; wing span 40-45 cm.

Description: Ears very large; much larger than the head; a peculiar nose: lower leaf very large concealing the upper lip; ears have rather large semi-circular lobe at the base; fur long, dense, soft, slightly curled or



Great Eastern Horse-shoe Bat



woody black with a silvery grizzle, or greyish black or rich chestnut brown. Hibernates during winter.

67. Pearson's Leaf-Bat (*Rhinolophus pearsoni*)

Distribution: Lower Himalayan range from Sikkim to Himachal Pradesh.

Size: Head and body 7-8 cm.; wing span 25-27 cm.

Description: Colour above dark brown with a slight shade of chestnut; underneath with a sooty cast; fur very long, dense and soft; ears distinct with an additional rounded lobe below. Easy to be recognized by the great length of fur.

68. Rufous Horse-shoe Bat (*Rhinolophus rouxi rouxi*)

Distribution: All over India.

Size: Head and body 5-7 cm.; tail 2.5 cm.; wing span 30-32 cm.

Description: Ears are large and pointed; tips of upper nose-leaf triangular reaching above the base of the ears. Canines very large. Short and crisp fur ranges in colour from smoky brown to reddish brown or sometimes even golden rufous. Underparts paler.

69. Trefoil Horse-shoe Bat (*Rhinolophus trifoliatius trifoliatius*)

Distribution: Himalayas, Assam and adjoining areas.

Size: Head and body 3-4 cm.

Description: Medium-sized horse-shoe bat with broad horse-shoe and trifoliate sella. Frontal sac is absent. Extreme tip of the tail free.

70. Least Horse-shoe Bat (*Rhinolophus pusillus blythi*)

Distribution: North Bengal, Nepal, Sikkim, Assam, Meghalaya.

Size: Head and body 6-7 cm.

Description: Small Horse-shoe bat with horizontal base of sella arched and equal in width to vertical part.

71. Little Indian Horse-shoe Bat (*Rhinolophus lepidus lepidus*)

Distribution: All over India.

Size: Head and body 7-8 cm.

Description: Very much similar to Least Horse-shoe bat but slightly larger (forearm around 40 mm.) with relatively longer ears and larger nose-leaf.

**72. Great Himalayan Leaf-nosed Bat** (*Hipposideros armiger armiger*)

Distribution: The entire range of Himalayas and Khasi and Garo hills upto the elevations of 1800 m.

Size: Head and body 10-12 cm; tail 6-7 cm.; wing span 53-58 cm..

Description: The hinder erect nose-leaf narrow; upper edge slightly elevated in the center; vertical ridges beneath well developed, prominent, enclosing moderately deep cells. The colour varies.

73. Fulvous Leaf-nosed Bat (*Hipposideros fulvus fulvus*)

Distribution: All over India.

Size: Head and body 4.5-5 cm.; tail 2.8-3 cm.; wing span 27-32 cm.

Description: Mouse brown or fulvous brown or even dusky black above, paler beneath. Last half of the tail free. Ears large, erect and pointed, rounded at the base. Males have a frontal sac.

74. *Hipposideros pomona gentilis*

Distribution: North Bengal, Sikkim, Assam, Meghalaya and Arunachal Pradesh.

Size: Head and body 4.5-5 cm.

Description: Very similar to Fulvous Leaf-nosed bat; ears large and round .

75. *Tadarida teniotis insignis*

Distribution: Eastern Himalayas.

Size: Head and body 7-8 cm.

Description: Ears united at bases of inner margins at a short distances from tip of nose; tragus broad, rounded above, half concealed by large antitragus; upper lip with well marked vertical wrinkles.

76. Harlequin Bat (*Scotomanes ornatus ornatus*)

Distribution: India and Myanmar.

Size: Head and body 7-8 cm.; tail 4.5-5 cm.; wing span 57-60 cm.

Description: Head broad; muzzle short; ears triangular erect with rounded tips. and broadly rounded lobe at the base. Fur is light brown spotted with white. From the throat below it is dark grey with a brownish tint which is lighter on the sides of the throat.



77. Long-eared Bat (*Plecotus auritus homochrous*)

Distribution: The Himalayas and the Khasi hills.

Size: Head and body 4-4.5 cm.; ears 3-3.5 cm.; tail 3-3.5 cm.

Description: Head slightly raised above the face-line; ears long and joined by a low band across the forehead wings from the base of toes; feet slender; tip of the tail flat. Fur silky, short and uniform brown.

78. Noctule (*Nyctalus labiatus*)

Distribution: Himalayas and adjoining areas.

Size: Head and body 4.5-5 cm.; tail 3-3.5 cm.

Description: Ears nearly as broad as long, tip broadly rounded; tragus short and curved towards the tip with a small triangular projection at base. Dorsal colour bright yellowish brown; ventral fur slightly paler.

79. Indian Pipistrelle or Little Bamboo Bat (*Pipistrellus coromandra coromandra*)

Distribution: India and South-Eastern Asia.

Size: Head and body 2.8-3 cm.; tail of about same length; wing span 17-18 cm.

Description: A reddish-brown creature, it is so small that it can crawl into a mere crack in a bamboo stem to roost. Apparently built to live amid bamboo, it has a flattened skull that enables it to use such a narrow entrance. Crown of head densely furred; muzzle blunt; ears subtriangular, rounded at the tips. It is active throughout the night and hibernates during the winter.

80. Babu Pipistrelle (*Pipistrellus babu*)

Distribution: All over India.

Size: Head and body 2.9-3.1 cm.

Description: A medium sized pipistrelle, with dorsal colour sepia brown or olive brown; ventral colour only slightly paler. Wings from base of toe.

81. Pegu Pipistrelle (*Pipistrellus peguensis*)

Distribution: Darjeeling and Burma.

Size: Head and body 2.9-3.1 cm.

Description: Slightly larger than Indian Pipistrelle. Fur is dense and long; dorsal colour uniform brown; ventral colour dirty white. Only recently reported from this region.

**82. Club-footed Bat** (*Tylonycteris pachypus fulvida*)

Distribution: North-East India and Andaman Islands.

Size: Head and body 2.7-2.9 cm.

Description: One of the smallest bat of this region, reddish brown above and below. Ears are rather short and rounded at tip. Tragus is short and rounded at tip.

83. Hairy-winged Bat (*Harpiocephalus harpia lasyurus*)

Distribution: Sikkim, Darjeeling and perhaps Khasi hills.

Size: Head and body 7-8 cm.; tail 3.5 cm.; wing span 32-37 cm.

Description: Fur above soft, silky and long; colour on the head, neck and shoulders brownish grey; rest of the body deep bay or reddish brown; muzzle rather short and conical. Has exceptionally powerful teeth and jaws. Feeds on insects.

84. White-bellied Tube-nosed Bat (*Murina leucogaster rubex*)

Distribution: Mountainous regions of Darjeeling.

Size: Head and body 7-8 cm. inches; tail 3-3.5 cm.; wing span 24-26 cm.

Description: Nostrils very prominent; ears small, shorter than the head, rounded at the tips; fur thick, close and woolly; colour above light greyish russet, below dull buffy.

85. Round-eared Tube-nosed Bat (*Murina cyclotis cyclotis*)

Distribution: Sikkim, Darjeeling.

Size: Head and body 4-4.3 cm.; tail 3.4-3.6 cm..

Description: Fur is long and dense and bi-coloured being dark brown at the base with bright ferruginous tips. Underparts pale-brown. Back of the feet covered with hair extending beyond the toes.

86. Peter's Tube-nosed Bat (*Murina huttoni huttoni*)

Distribution: Himalayas and further east.

Size: Head and body 6-7 cm.

Description: Similar to white-bellied tube-nosed bat but smaller; dorsal surface greyish brown and ventral surface greyish white, with a slight brownish tinge.

**87. Scully's Tube-nosed Bat (*Murina tubinaris*)**

Distribution: Himalayas and further east.

Size: Head and body 3.7-3.9 cm.

Description: Similar to Round-eared Tube-nosed Bat but is slightly smaller. Can be differentiated by the presence of a slight emargination in the posterior margin of the ear.

88. Silky Bat or Serotine (*Eptesicus serotinus*)

Distribution: Found over Himalayas from Kashmir to Arunachal Pradesh. In Sikkim its distribution so far not ascertained. It is a Palearctic creature, hence, must be confined to colder areas in Sikkim. It is rather rare.

Size: Head and body 6-7 cm.; tail 4.7-5 cm.; wing span 30-33 cm.

Description: Fur deep bay to chestnut brown with grey underparts; hairs of back long and silky. It flies steadily and rather slow. Has been known to hibernate in small groups in winter in the hollows of tree and in caves.

89. Eptesicus talei

Distribution: Sikkim, Darjeeling.

Size: Head and body 4.8-5 cm.; tail 4.8-5 cm..

Description: Head broad; muzzle obtuse; ears large, oval with rounded tips. Fur long; dense and dark brown to black; paler beneath.

90. Painted Bat (*Kerivoula picta picta*)

Distribution: All over India. But is rare.

Size: Head and body 3.4-3.5 cm.; tail 3.7-3.8 cm.; wing span 24-25 cm.

Description: Bright-orange or ferruginous colour makes this bat unmistakable. Wing membrane black with orange spots. Ears funnel shaped; tragus very narrow and transparent.

91. Hardwicke's Bat (*Kerivoula hardwickei depressa*)

Distribution: Himalayas and further east.

Size: Head and body 3-4 cm.

Description: Similar to painted bat, but distinctly different in colour and in having slightly longer ears. Colour of fur greyish brown above and below, basal half of hairs dark brown.

Sikkim is the perfect example of the common observation "Small is beautiful". It is a scenic paradise with lofty mountains, deep valleys, mighty rivers, numerous rivulets, lakes, natural springs and streams against the picturesque backdrop of the presiding deity of Mt. Khangchendzonga. Occupying a mere 7096 sqkm of land expanse it unveils tremendous differentiation in life forms. This book focuses on the mammalian richness of Sikkim.

Like all the biologically rich areas, Sikkim too is faced with a number of factors that can prove disastrous to its entity. The present times provide us an excellent opportunity to conserve this tremendous diversity. Conservation begins with awareness. This book is an attempt to create awareness about our rich mammalian heritage. It provides basic details on almost 156 species and sub-species of mammals in a simple form along with some 70 illustrations. It informs the reader of the local names and distribution of the mammals within Sikkim. It can be useful to the students, travellers, wildlife enthusiasts and even a beginner!!