

**This research information is collected under a WWF-India-
Department of Science and Technology, Sikkim Project**

Researchers: Dr. Ajeya Jha, Sikkim Manipal Institute of Technology
Dr. R.K. Avasthe, Indian Council for Agricultural Research

Acknowledgments

Sikkim, small, enchanting second smallest state of India with deep valleys and tall mountains located between 27° 5' N to 28° 9' N and 87° 59' E to 88° 56' E in an area of 7096 sqkm is extremely rich in biological diversity. This biodiversity is facing threats from various quarters when there exists an urgency to conserve and sustainably utilize the natural resources. Raising of the education and awareness levels can play an identified important role. "Mammals of Sikkim" is one small step in this direction. This 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 Shri Samar Singh, Secretary General, World Wide Fund For Nature - India for his constant encouragement and enthusiastic support for efforts in the area of environment education (EE). We sincerely acknowledge the keen interest evinced by Shri 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 Shri 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.

We are obliged to Shri 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. Rapgyal, the then Assistant Education Officer who initiated this work.

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 cards. 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, Shri T.R. Sharma, IFS, PCCF cum Secretary, Department of Forest and Shri D.K. Gurung, SMES, Secretary, Department of Science & Technology, Government of Sikkim for their constant support.

WORLD WIDE FUND FOR NATURE - INDIA

The World Wide Fund For Nature - India (WWF India), formerly known as the World Wildlife Fund - India, was established in 1969 as a charitable trust under the Bombay Public Trusts Act of 1950. Today, WWF-India is the country's largest conservation NGO with a network of State/Divisional Offices and Field Offices spread across the country. Its Secretariat is in New Delhi. The organization is a part of the WWF family worldwide, with 25 other independent WWF National Organizations. The coordinating International Secretariat, the WWF International, is located at Gland in Switzerland.

WWF-India started life as a modest wildlife conservation organisation with a focus on protecting particular species of wild fauna. Over the years, the perspective broadened to encompass conservation of habitats, ecosystems and support to the management of the country's protected areas network. In 1989 WWF India articulated its mission as follows, to suit India's specific ecological and socio-cultural circumstances:

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

The WWF India Mission has five broad *programme components*:

- **Promoting India's** ecological security - restoring the ecological balance
- **Conserving** biological diversity
- **Ensuring** sustainable use of the natural resource base
- **Minimising** pollution and wasteful consumption
- **Promoting** sustainable life-styles

In achieving its mission, WWF India uses the following main *programme methods*: **field programmes** that serve as demonstration projects; **public policy analysis and debates** through independent research, consultation and campaigns; **education** activities for key target groups including the youth, professionals and administrators; **communication** through multimedia approaches; **networking** and supporting the work of fellow NGOs in India; and **mobilising** necessary financial, scientific and technical resources.

PRIMATES

We begin our narration with **Primates** which occupy the prime position in the animal kingdom because of their close resemblance with 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*)

- a. Local name:** *Suhu* (Lepcha); *Tedu* (Nepali)
- b. Distribution:** Bengal, Lower Sikkim and Central India.
- c. Distribution in Sikkim:** Found throughout the state at lower elevations. Khangchendzonga National Park.
- d. Size:** Male head and body length 75 – 80 cm; tail 110 –115 cm; weight 9-16 kg. Female distinguishably smaller
- e. 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.
- f. Status:** Endangered, Schedule II, (1991).

2. Himalayan Langur (*Presbytis entellus schistaceus*)

- a. Local name:** *Kamba suhu* (Lepcha); *Kubup* (Bhutia)
- b. Distribution:** Scattered all over the Himalayan range.
- c. Distribution in Sikkim:** Khangchendzonga National Park and other regions at elevations upto 4000 m. Two varieties have been reported which differ in size, pelage and size of the group.
- d. Size:** Head and body 33 inches; tail 40 inches; weight 16-21 kg.
- e. 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.

f. Status: Endangered, Schedule II, (1991).

3. Rhesus Monkey (*Macacus mulatta mulatta*)

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

b. Distribution: Himalayas, Assam, and Northern and Central India.

c. Distribution in Sikkim: 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.

d. Size: 32 inches including 10-11 inches long tail; weight 7-10 kg.

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

f. Status: Endangered, Schedule II, (1991).

4. Assamese Macaque (*Macaca assamensis pelops*)

a. Distribution: Himalayas from Mussoorie eastwards to the hill ranges of Assam and the forests of Sunderbans, extending upto Myanmar.

b. Distribution in Sikkim: Wide range of distribution from Tista and Rangit valleys reaching upto heights not less than 3000 m. Common at Khangchendzonga National Park.

c. Size: Head and body a little over 2 feet; tail about 8 inches. Male may weigh about 12 kg.

d. 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 heavy forests. During winters descend to elevations of 600-1200 m.

e. Status: Endangered, Schedule II, (1991).

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 also. Some of the most remarkable and successful hunters of animal kingdom belong to this family Unlike wolves or wild-dogs they hunt alone and do not run their victims down. Surprise attack is the essence of their hunting. They are confirmed flesh eaters.

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

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

b. Distribution: It is found in India from the Himalayas to Cape Comorin except in the deserts of Rajasthan, the Punjab, Kutch and Sind. Tracks have been found upto altitudes of 3000 m.

c. Distribution in Sikkim: Tigers migrate from either West Bengal or Bhutan and normally enter from Lava forest - Rachel, 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, Dombang and follow the same route back to Lava after about three months. They enter Sikkim during October-November.

d. Census: 1993 - sighted two tigers at Men-men-chu RF.

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

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

g. Status: Endangered, Schedule I, (1991).

6. **Leopard** (*Panthera pardus pardus*)

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

b. 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 species.

c. Distribution in Sikkim: Rishi, Manpur, Kitam RF, Sombaria and Khangchendzonga National Park.

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

e. 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.

f. Status: Endangered, Schedule I, (1991).

7. Snow Leopard (*Uncia uncia*)

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

b. Distribution: In India it is found in the Himalayas from Kashmir to Sikkim at elevations ranging between 3660-3965 m.

c. Distribution in Sikkim: Lasher valley, Yumesamdang, Cho Lhamu (Near Thanggu, 3940 m), Sebu la, Lhonak valley, Youmcho, Seokun, Bhamchona, Chulung valley, Nimphu, Kishongla, Rithong, Thosa, Lampokhari, Dudhpokhari and Khangchendzonga National Park.

d. Census: 1993, Recorded 3 snow leopards from Lasher valley and 1 in 1994 near Thanggu.

e. Size: Head and body 100-105 cm; tail about 3 feet; weight 40-50 kg.

f. Description: One of the most charming animal, it is distinct in having a 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 domestic sheep, goats and ponies. Has specialised in hunting Bharal which is its indicator species.

g. Status: Endangered, Schedule I, (1991).

8. Clouded Leopard (*Neofelis nebulosa*)

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

b. Distribution: Nepal, Sikkim, Assam, Arunachal Pradesh and further east.

c. Distribution Sikkim: Very rare. Manpur, Kerabari, Kitam, Dzongu, Rhenock, Barapathing, Sombaria, Baua, 6th Mile (Ranipool) and Khangchendzonga National Park.

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

e. 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. 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, muntjac and squirrels.

f. Status: Endangered, Schedule I, (1991).

9. Leopard Cat (*Felis bengalensis horsfieldi*)

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

b. Distribution: Found in the forests from Kashmir and the Himalayas to Cape Comorin.

c. Distribution in Sikkim: It is quite common throughout the state at elevations ranging upto 2100 2400 m. Population rather high at Khangchendzonga National Park.

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

e. 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.

f. Status: Endangered, Schedule I, (1991).

10. Marbled Cat (*Felis marmorata charltoni*)

a. Distribution: Sikkim and Assam.

b. Distribution in Sikkim: Reported by the Zoological Survey of India from the Chungthang Bob area in North Sikkim. Not uncommon at Khangchendzonga National Park.

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

d. Description: It is easily distinguished from other cats by its 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.

e. Status: Endangered, Schedule I, (1991).

11. Fishing Cat (*Felis viverrina*)

a. Local name: *Mach baghral* (Nepali)

b. Distribution: Nepal, Bengal, Orissa, Assam, Sikkim and Arunachal Pradesh.

c. Distribution in Sikkim: Rare. Upto the elevations of 1800 m. in East and South districts close to the streams and other water bodies.

d. Size: Head and body 90-100 cm; tail 25-30 cm; 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!

Status: Endangered, Schedule I, (1991).

12. Golden Cat (*Felis temmincki temmincki*)

a. Local name: *Sonali Biral* (Nepali)

b. Distribution: Nepal, Sikkim and Arunachal Pradesh.

c. Distribution in Sikkim: Pangdin, Kangarten, Lasher, Thela, Green lake, Marcopolo camp, Shibringu within Khangchendzonga National Park, Tamzay, Thosa lake, Chimathang, Gochela, Lampokhari. Very rare.

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

e. Description: One of the most beautiful cat. 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.

f. Status: Endangered, Schedule I, (1991).

13. Jungle Cat (*Felis chaus affinis*)

a. Local name: *Ban Biral* (Nepali)

b. Distribution: Throughout India.

c. Distribution in Sikkim: Tropical forests of the state.

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

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

f. Status: Endangered, Schedule II, (1991).

14. Tibetan Lynx (*Felis lynx isabellina*)

a. Distribution: Gilgit, Ladakh, and Tibet.

b. Distribution in Sikkim: Around the meadows of Plateau region of Sikkim.

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

d. 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.

e. Status: Endangered, Schedule I, (1991).

CIVETS

Civets: The so called civet-cat is not a member of the cat family, though it is a meat-eating animal. They have a long body, about the size

of a domestic cat, short legs and a tapered head with small ears, and a long bushy tail. They are nocturnal hunters that prey upon small animals. They may also eat dead animals and vegetable materials. It is valued for a fatty yellow substance stored near its tail. Since ancient times this musky secretion has been the base of a rare perfume. Animal activists, however, are now raising their voices against such practices.

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

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

b. Distribution: Not very uncommon in the forests of Central and Eastern Himalayas.

c. Distribution in Sikkim: Wide spread in the tropical and sub-tropical forests of Sikkim upto the elevations of 2100 m. but not very common.

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

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

d. Status: Endangered, Schedule II, (1991).

16. Himalayan Palm Civet (*Paguma larvata*)

a. Local name: *Himali Kastoori Biral* (Nepali)

b. Distribution: Spread all over the Western, central and eastern Himalayas and Northeastern hill forests.

c. Distribution in Sikkim: 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.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

17. Common Palm Civet (*Paradoxorus phroditus*)

a. Local name: *Tadi Birallo* (Nepali)

b. Distribution: Distributed all over Sri Lanka, India, Southern China and South- Eastern Asia.

c. Distribution in Sikkim: Tropical forests of the state. Near human settlements.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

18. Large Indian Civet (*Viverra zibetha*)

a. Local name: *Kastoori birallo* and *Nit biralu* (Nepali); *Kung* (Bhutia); *Saphiong* (Lepcha)

b. Distribution: Tropical and sub-tropical forests of Eastern Nepal, Sikkim, Assam, Arunachal Pradesh and South-eastern countries.

c. Distribution in Sikkim: Found almost throughout the state at elevations upto 2100 m., Khangchendzonga National Park.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

19. Small Indian Civet (*Viverricula indica*)

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

b. Distribution: Eastern and Central Himalayas and adjoining areas.

c. Distribution at Sikkim: Edges of the lower lying forest at altitudes ranging upto 1200 m. Has been reported to be observed at Singtam, Sangkhola and Makha.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

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

a. Local name: *Bhalu-biral* (Nepali)

b. Distribution: In India it is found at Sikkim, Assam and Arunachal Pradesh.

c. Distribution in Sikkim: Dense tropical and sub-tropical forests of Khangchendzonga National Park. Reported to be sighted at thick forests of South Sikkim also.

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

e. 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 refers living over trees.

f. Status: Endangered, Schedule II, (1991).

MONGOOSES

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*)

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

b. Distribution: North India.

c. Distribution in Sikkim: Tropical forest edges, scrub jungles and cultivated areas.

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

e. 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.

f. Status: Endangered, Schedule IV, (1991).

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

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

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

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

d. 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.

e. Status: Endangered, Schedule IV, (1991).

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

a. Distribution: Nepal to Assam, eastwards to Myanmar, south China and the northern parts of Malaya.

b. Distribution in Sikkim: Is found near the hill-streams in South and East districts.

c. Size: Head and body 45-50 cm; tail 35-40 cm; weight 2.0 kg.

d. 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.

e. Status: Endangered, Schedule IV, (1991).

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 them. Jackals and Foxes are solitary hunters but are excellent survivors.

24. Tibetan Wolf (*Canis lupus chanko*)

a. Local name: *Chanko, Changu* (Tibetan)

b. Distribution: North Sikkim and Tibet.

c. Distribution in Sikkim: Found in Yumthang valley, Lasher valley, Cho Lhamu, Lhonak valley in North Sikkim. Tamze, Kyongnosla Alpine Sanctuary, Pangolakha and Rachela in East; Maenam Wildlife Sanctuary in South and Lampokhari, Kasturi odor, 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 and has been sighted at Bamchhona and Sesse la meadows and slopes and preys upon the kiang, yak and its calves.

d. Census: 1993, recorded 4 wolves.

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

f. 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 but relishes dog-flesh in particular. Known to hunt both during day and at night.

g. Status: Endangered, Schedule I, (1991).

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

a. **Local name:** *Wamu* (Nepali)

b. **Distribution:** Ladakh, Lahul, Spiti, Kumaun and Sikkim.

c. **Distribution in Sikkim:** 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.

d. **Census:** 1993, recorded 2 foxes.

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

f. **Description:** A richly coloured animal having a white tipped tail. The fur is abundantly 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.

g. **Status:** Endangered, Schedule II, (1991).

26. Tibetan Fox (*Vulpes ferrilatus*)

a. **Local name:** *Iger* (Tibetan)

b. **Distribution:** Tibet, Nepal and Sikkim.

c. **Distribution in Sikkim:** Chho Lhamu, Green lake in North Sikkim, Botang la, Doka la area in East Sikkim.

d. **Size:** About same as that of Hill-fox.

e. **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.

f. **Status:** Endangered, Schedule I, (1991).

27. Indian Fox (*Vulpes bengalensis*)

a. **Local name:** *Phyaro* (Nepali)

b. Distribution: Whole of India from lower Himalayas to Cape Comorin.

c. Distribution in Sikkim: Edges of the forests at the tropical river valleys of South and East Sikkim.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

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

a. Local name: *Sidda ki* and *Hazee* (Tibetan); *Paoho* (Bhutia); *Suhutum* (Lepcha); *Buanso, Bhoonsa* and *Jungli Kukkur* (Nepali)

b. Distribution: Central and Eastern Asia. Almost everywhere in India.

c. Distribution 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.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

29. Jackal (*Canis aureus*)

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

b. Distribution: Throughout India and Sri Lanka.

c. Distribution in Sikkim: 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.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

THE BEARS AND THE PANDA

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

30. Red Panda (*Ailurus fulgens fulgens*)

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

b. Distribution: Himalayas from Nepal and Sikkim eastwards to upper Myanmar and South China.

c. Distribution in Sikkim: The State Animal 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 average.

d. Census: 1993, Recorded 4 Red Pandas.

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

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

g. Status: Endangered, Schedule I, (1991).

Bears: It is probably because they are so well known that bears are the subject of so many legends and folklore. Although they are so 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. It is 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*)

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

b. Distribution: North-western and Central Himalayas and Bhutan.

c. Distribution in Sikkim: Phuni in Lachung, Green lake, Tamze(?). Tracks have been found in Lampokhari and the plateau.

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

e. 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.

f. Status: Endangered, Schedule I, (1991).

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

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

b. Distribution: In India it is found in Himalayas and Assam.

c. Distribution in Sikkim: 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.

d. Census: 1993, recorded 9 Himalayan black bears.

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

f. 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.

g. Status: Endangered, Schedule II, (1991).

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 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. They eat fish and other water creatures but on land also are formidable hunters.

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

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

b. **Distribution:** In India it is found in Kashmir, the Himalayas and Assam.

c. **Distribution in Sikkim:** During summer season migrate 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.

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

e. **Description:** Distinguishing features are a close coat of waterproof 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.

f. **Status:** Endangered, Schedule II, (1991).

34. Claw-less Otter (*Aonyx cinerea concolor*)

a. **Local name:** *Chusam* (Bhutia); *Suriam* (Lepcha)

b. **Distribution:** Throughout the Himalayas, also in lower Bengal and in Myanmar.

c. **Size:** Head and body 45-55 cm; tail 25-35 cm; weight 3-6 kg.

d. **Description:** Above earthy brown or chestnut brown; lips, sides of head, chin throat and upper part of breast white, tinged with yellowish grey.

e. **Status:** Endangered, Schedule I, (1991).

35. Smooth Indian Otter (*Lutra perspicillata*)

(Included on the basis of unconfirmed reports)

a. **Local name:** *Ote* (Nepali)

b. **Distribution:** India, from Himalayas to extreme south. Myanmar, Indo-China and Malaya.

c. **Size:** Head and body 65-75 cm; tail 40-45 cm; weight 7-11 kg.

d. **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.

e. **Status:** Endangered, Schedule II, (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.

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

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

b. **Distribution:** Kashmir and the Himalayas as far east as Sikkim.

c. **Distribution in Sikkim:** Rare but widely distributed at elevations ranging between 1800-3600 m. amsl. Sighted at Cho Lhamu, Lhonak valley, Kishongla and Samdong.

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

e. **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 they can capture and overcome.

f. **Status:** Endangered, Schedule II, (1991).

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

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

b. **Distribution:** Himalayas and Assam hill ranges extending to Myanmar, China and the Malay countries.

c. **Distribution in Sikkim:** Almost throughout the state at elevations ranging between 1200 to 2700 m. They live in forest and always remain below the tree line. Occasionally seen at Gangtok also. Sightings can be made in the pastures of Yumthang and Yumesamdong also.

d. **Census:** 1993, Recorded 5 Martens.

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

f. **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.

g. **Status:** Endangered, Schedule II, (1991).

Weasels: Weasel is any of several small animals with long, muscular bodies that 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 as many as four varieties of them.

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

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

b. Distribution: Nepal hills, Sikkim and Tibet.

c. Distribution in Sikkim: 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.

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

e. 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 hold of.

f. Status: Endangered, Schedule II, (1991).

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

a. Local name: *Kathia nyal* (Nepali)

b. Distribution: Nepal, Sikkim and Bhutan.

c. Distribution in Sikkim: A forest dweller it is quite at home at sub-tropical and temperate elevations.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

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

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

b. Distribution: Sikkim and adjoining areas.

c. Distribution in Sikkim: Found alongwith the yellow-bellied weasel in temperate forests ranging between 1200-2100 m. Population low.

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

e. 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.

f. Status: Endangered, Schedule II, (1991).

41. Pale Weasel (*Mustela altaica*)

(Included on the basis of unconfirmed reports)

a. Distribution: Generally distributed in the upper levels of Himalayas.

b. Distribution in Sikkim: Expected at elevations ranging between 2100 to 4000 m.

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

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

e. Status: Endangered, 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*)

a. Local name : *Tampha* (Tibetan)

b. Distribution: Nepal, Sikkim, Assam extending upto Western Yunnan.

c. Distribution in Sikkim: Not ascertained. Probably tropical and sub-tropical regions.

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

e. **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.

f. **Status:** Endangered, Schedule I, (1991).

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

a. **Local name:** *Oker* (Nepali)

b. **Distribution:** From Nepal eastwards to Sikkim, Assam, Myanmar and Thailand.

c. **Distribution in Sikkim:** Not ascertained. Limited to tropical and sub-tropical forests of the state.

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

e. **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.

f. **Status:** Endangered, Schedule II, (1991).

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*)

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

b. **Distribution:** Eastern Himalayan Range.

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

d. **Size:** Length 10-12 cm.

e. Description: Velvety black, with greyish sheen in certain lights; snout nude; Practically blind; feet are fleshy white; tail very small (0.2 inch). Feeds on earth-worms, snails, small insects, frogs and even small birds.

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

a. Local name: *Pariam* (Lepcha)

b. Distribution: Sikkim.

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

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

e. Description: Deep slaty blue with a whitish or hoary gloss; shimmering when wet. The tail is covered with soft hair. Lives principally on earthworm, 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 live at high speed, they sleep little, and have a small life. They feed mostly on insects but other food is also taken as well.

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

a. Local name: *Chachunder* (Nepali)

b. Distribution: India and Sri Lanka.

c. Distribution in Sikkim: Tropical and sub-tropical regions of the state.

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

e. Description: Bluish gray fur. In semi-darkness its fur produces almost luminous effect. Naked parts flesh coloured. Despite poor eyesight it has acquired an outstanding 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*)

a. Local name: *Chachunder* (Nepali)

b. Distribution: China, Myanmar and Malayan countries extending to Bengal, Assam and Southern India.

c. Distribution in Sikkim: Tropical and sub-tropical regions of the state.

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

e. 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*)

a. Distribution: Jammu & Kashmir, Punjab, Uttar Pradesh, Sikkim, Bhutan and Darjeeling.

b. Distribution in Sikkim: Sub-tropical and temperate regions of the state.

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

d. 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*)

a. Distribution: West Bengal, Sikkim, Arunachal pradesh, Assam and other North- eastern states.

b. Distribution in Sikkim: Sub-tropical and temperate regions of the state.

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

d. 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*)

a. Local name: *Rato chachunder* (Nepali)

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

c. Distribution in Sikkim: Sub-tropical and temperate regions of the state.

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

e. 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*)

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

b. Distribution in Sikkim: Sub-tropical and temperate regions of the state.

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

d. 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*)

a. Distribution: Sikkim and Nepal.

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

c. 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*)

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

b. Distribution: Sikkim and Darjeeling.

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

d. **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. A frequenter of small streams and marshes, it 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*)

a. **Distribution:** North Bengal, Nepal, Sikkim and Bhutan.

b. **Distribution in Sikkim:** Not ascertained.

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

d. **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 neighboring 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. It is a simple little creature, never still, always seeking its food.

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

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

b. **Distribution:** Sikkim, Darjeeling, Assam and Arunachal Pradesh.

c. **Distribution in Sikkim:** Widespread in the state upto the elevations of 1800 m. Has been sighted at and near Gangtok also.

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

e. **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. In other words every one in four mammals found in Sikkim happens to be a Bat!!! 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 to determine their relation at all times to other objects whether they be fixed or moving.

56. **Flying Fox** (*Pteropus giganteus giganteus*)

a. Local name: *Chamera* (Nepali)

b. Distribution: India, Sri Lanka, Myanmar.

c. Distribution in Sikkim: Melli, Rangpo, Singtam and Ranipool and perhaps other tropical regions of the state.

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

e. 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.

f. Status: Endangered, Schedule V, (1991).

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

a. Distribution: India and South-eastern Asia.

b. Distribution in Sikkim: Throughout the state at elevations upto 2250m.

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

d. 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.

e. Status: Endangered, Schedule V, (1991).

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

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

b. Size: Head and body 10-12 cm; tail 1 cm; wingspan 45-55 cm.

c. 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.

d. Status: Endangered, Schedule V, (1991).

59. Cave Fruit Bat (*Eonycteris spelaea*)

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

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

c. 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.

d. Status: Endangered, Schedule V, (1991).

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

a. Distribution: Darjeeling, Sikkim and other North-eastern States.

b. Size: Head and body 10-11 cm.

c. 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*)

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

b. Size: Head and body 7-7.5 cm.

c. 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*)

a. Distribution: Darjeeling, Sikkim and Assam.

b. Size: Head and body 6-6.5 cm

c. 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 kachhenis*)

a. Distribution: India generally.

b. Size: Head and body 13-15 cm; tail 2.5 cm; wingspan 37-40 cm.

c. 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.

64. Indian False Vampire (*Megaderma lyra*)

a. Distribution: All over India.

b. Size: Head and body 8-9 cm; tail absent; wingspan 37-40 cm.

c. 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*)

a. Distribution: India and Indo-China.

b. Size: Head and body 7-8 cm.

c. 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*)

a. Distribution: Nepal, Sikkim and Meghalaya.

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

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

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

a. Distribution: Lower Himalayan range from Sikkim to Himachal Pradesh.

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

c. 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*)

a. Distribution: All over India.

b. Size: Head and body 5-7 cm; tail 2.5 cm; wingspan 30-32 cm.

c. 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 trifolius trifolius*)

a. Distribution: Himalayas, Assam and adjoining areas.

b. Size: Head and body 3-4 cm.

c. 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*)

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

b. Size: Head and body 6-7 cm.

c. 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*)

a. Distribution: All over India.

b. Size: Head and body 7-8 cm.

c. 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*)

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

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

c. 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*)

a. Distribution: All over India.

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

c. 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*

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

b. Size: Head and body 4.5-5 cm.

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

75. *Tadarida teniotis insignis*

a. Distribution: Eastern Himalayas.

b. 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*)

a. **Distribution:** India and Myanmar.

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

c. **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*)

a. **Distribution:** The Himalayas and the Khasi hills.

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

c. **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 noctula labiatus*)

- a. **Distribution:** Himalayas and adjoining areas.
- b. **Size:** Head and body 4.5-5 cm; tail 3-3.5 cm.
- c. **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*)

- a. **Distribution:** India and South-Eastern Asia.
- b. **Size:** Head and body 2.8-3 cm; tail of about same length; wingspan 17-18 cm.
- c. **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*)

- a. **Distribution:** Allover India.
- b. **Size:** Head and body 2.9-3.1 cm.
- c. **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*)

- a. **Distribution:** Darjeeling and Burma.
- b. **Size:** Head and body 2.9-3.1 cm.
- c. **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*)

- a. **Distribution:** North-East India and Andaman Islands.
- b. **Size:** Head and body 2.7-2.9 cm.
- c. **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*)

- a. **Distribution:** Sikkim, Darjeeling and perhaps Khasi hills.
- b. **Size:** Head and body 7-8 cm; tail 3.5 cm; wing span 32-37 cm.
- c. **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. Have exceptionally powerful teeth and jaws. Feeds on insects.

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

- a. **Distribution:** Mountainous regions of Darjeeling.
- b. **Size:** Head and body 7-8 cm; tail 3-3.5 cm; wing span 24-26 cm.
- c. **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*)

- a. **Distribution:** Sikkim, Darjeeling.
- b. **Size:** Head and body 4-4.3 cm; tail 3.4-3.6 cm.
- c. **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*)

- a. **Distribution:** Himalayas and further east.

- b. **Size:** Head and body 6-7 cm.
- c. **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*)

- a. **Distribution:** Himalayas and further east.
- b. **Size:** Head and body 3.7-3.9 cm.
- c. **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*)

- a. **Distribution:** Found over Himalayas from Kashmir to Arunachal Pradesh.
- b. **Distribution in Sikkim:** Not ascertained. It is a Palearctic creature, hence may be mostly confined to colder areas in Sikkim. It is rather rare.
- c. **Size:** Head and body 6-7 cm; tail 4.7-5 cm; wing span 30-33 cm.
- d. **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*

- a. **Distribution:** Sikkim, Darjeeling
- b. **Size:** Head and body 4.8-5 cm; tail 4.8-5 cm
- c. **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*)

- a. **Distribution:** All over India. But is rare.

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

- a. **Distribution:** Himalayas and further east.
- b. **Size:** Head and body 3-4 cm.
- c. **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.

92. Nepal Bat (*Myotis mystacinus nipalensis*)

- a. **Distribution:** Himalayas.
- b. **Size:** Head and body 3.5-4.5 cm; tail of about same length.
- c. **Description:** Muzzle narrow long, larger than the head; Skull vaulted; ears as long as head; wings from base of toes; fur dark brown.

93. Hodgson's Bat (*Myotis formosus formosus*)

- a. **Distribution:** West Bengal, U.P., Himachal Pradesh, Nepal, Sikkim, Khasi Hills.
- b. **Size:** Head and body 4.8-5 cm; tail 2.9-3 cm; wing span 27-28 cm.
- c. **Description:** Wing membrane broad and variegated with orange and rich dark brown. All the remaining portion of the membrane are orange, as also the ears.

94. *Myotis sicarius*

- a. **Distribution:** Nepal, North Bengal and Sikkim.
- b. **Size:** Head and body 8-9 cm.
- c. **Description:** Rather large-sized, dark brown above and below. Extreme tips of hairs of belly whitish. Tip of ears is rounded off.

95. *Myotis siligorensis siligorensis*

- a. **Distribution:** North Bengal, Nepal, Sikkim, Assam and Meghalaya.
- b. **Size:** Head and body 4.7-5 cm.
- c. **Descriptions:** Smallest *Myotis* of this region. Upper parts dark brown , underparts paler, tinged with cinnamon or buff; ears long; tragus long narrow and pointed and about half the length of ears.

96. Eastern Barbastelle (*Barbastella leucomelas darjelingensis*)

- a. **Distribution:** Central Himalayas extending upto Sikkim.
- b. **Size:** Head and Body 4.7-5 cm; tail 2.9-3 cm; wingspan 25-27 cm.
- c. **Description:** Ears large, connate at the base in front, broad concealing the base of the head. Tragus broad at the base and narrow at the tip.

RODENTS

Rodents are animals that gnaw. To most people, the name suggests only rats and mice. But it describes many other creatures such as squirrels, marmots and porcupines.

Squirrels: These are small and slender bodied creatures which are very much at home on trees. Most have a magnificent tail which they use to maintain and correct the balance of the animal in its daring leaps from branch to branch. In Sikkim they largely feed on nuts, seeds, edible mushrooms and toadstools.

97. Malayan Giant Squirrel (*Ratufa bicolor*)

- a. **Local name:** *Le-hyuk* (Lepcha); *Shingsham* (Bhutia)
- b. **Distribution:** Sikkim, Assam, Arunachal Pradesh and further east.
- c. **Distribution in Sikkim:** Found in Ravangla, Damthang, Maenam Wildlife Sanctuary in South; Yuksom-Dzongri area, Khechupheri, Hilley, Barsey in West; Tong RF, Chungthang, Dzongu, Shepgyur in North; Fambong Lho, Lagyap RF, Bhusuk, Barapathing RF, Premlakha and Regu in East District. Reported by Zoological Survey of India from Tashiding-Legship.

- d. **Size:** Head and body 38-40; tail 40-42 cm
- e. **Description:** The upper surface is either wholly black or reddish brown, without any trace of white; the tail is generally black. The under parts are pale-yellowish white to rich rufus orange. These magnificent creatures favour tropical and sub-tropical forests. They jump from one tree to other and are capable of covering as much as eight meters in a single leap. They inhabit lofty tree jungle making their nests on the top of the tallest tree.
- f. **Status:** Endangered, Schedule II, (1991).

98. Orange-bellied Himalayan Squirrel (*Dremomys lokriah lokriah*)

- a. **Local name:** *Kallitindong* (Lepcha); *Zhamo* (Bhutia); *Lokriah* (Nepali)
- b. **Distribution:** Nepal, Sikkim, Assam and Arunachal Pradesh.
- c. **Distribution in Sikkim:** Widely distributed at areas ranging from 1500-2700 m. Reported by Zoological Survey of India from Bakkhim.
- d. **Size:** Head and body 21-29 cm; tail 16-20 cm.
- e. **Description:** A dark brown squirrel having pale-red coloured under parts and preferring altitudinal range from 1500 to 2700 m. They live in hollow of tree trunks and may come to the ground in search of food.

Hoary-Bellied Himalayan Squirrel (*Callosciurus pygarythrus*)

- a. **Local name:** *Ka li* (Lepcha)
- b. **Distribution:** Southeastern Himalayas (Nepal, Sikkim, Assam and Arunachal Pradesh).
- c. **Size:** Head and body 18-20 cm; tail 16-20 cm.
- d. **Description:** Greyish-brown in colour; the fur is coarser and more broadly ringed than in the previous species. Its home range is limited to tropical and sub-tropical forests between elevations of 150 to 1500 m. They live in dense forest, open grasslands and in the vicinity of human settlements.

100. Himalayan Striped Squirrel (*Callosciurus macclellandi*)

- a. **Local name:** *Kali gangdin* (Lepcha)
- b. **Distribution:** Nepal, Sikkim, Tibet, Assam, China and Far East.
- c. **Size:** Head and body 12-13 cm; tail 10-11 cm.
- d. **Description:** A greyish brown coloured squirrel with black and brown stripes on its back. It is very much at home on the ground though when threatened take refuge on trees. It is shy and elusive and remains confined below elevations of 1500 m.

101. Northern Palm Squirrel (*Funambulus pennanti*)

- a. **Distribution:** Common in Northern India.
- b. **Size:** Head and body 12-13 cm; tail 15-17 cm.
- c. **Description:** Distinctive in having five pale stripes on its back, three median pale stripes flanked on each side with a supplementary pale stripe.

Flying-squirrels: These are nocturnal rodents that glide from higher to lower tree branches by means of a blanketlike membrane of furry skin stretched between its long forelegs and hindlegs. They have large eyes, dense soft fur, and long flattened tails. The Malayan Giant Flying Squirrel has been known to glide as far as 450 m.!!! Sikkim is particularly rich in flying squirrels and is the home of as many as seven species of them.

102. Kashmir Woolly Flying Squirrel (*Eupetaurus cinereus*)

- a. **Distribution:** Restricted to northern tracts of Ladakh, Nepal and Sikkim.
- b. **Distribution in Sikkim:** Pangdin, Kangarten and Rangit valley. Reported by Zoological Survey of India from Bakkhim.
- c. **Size:** Head and body 55-57 cm; tail 45-47 cm.
- d. **Description:** It has a rich maroon fur with pale yellow underparts. The ears are large and moderately pointed. An excellent and graceful glider it has been known to cover long distances on 'wings'.
- e. **Status:** Endangered, Schedule II, (1991).

103. Hodgson's Giant Flying Squirrel (*Petaurista magnificus hodgsoni*)

- a. **Local name:** *Biyom* (Lepcha)
- b. **Distribution:** Nepal, Sikkim, Bhutan and Arunachal Pradesh.
- c. **Size:** Head and body 40-44 cm; tail 52-57 cm.
- d. **Description:** Also known as red-bellied flying squirrel, is a bright chestnut colored animal with orange fawn underparts and a orange-red tail, tipped broadly with black. The ears are large, semi nude with pale red hair. Frequents altitudes ranging from 1500 to 2700 m. and feeds on acorns, chestnuts and other hard fruits.
- e. **Status:** Endangered, Schedule II, (1991).

104. Lesser Giant Flying Squirrel (*Petaurista elegans caniceps*)

- a. **Distribution:** Eastern Himalayas.
- b. **Size:** Head and body 32-33 cm; tail 37-40 cm.
- c. **Description:** General colour is rich dark maroon with some individuals having almost a hoary tinge. The ears are large and semi-rounded.
- d. **Status:** Endangered, Schedule II, (1991).

105. Grey-headed Flying Squirrel (*Petaurista elegans caniceps*)

- a. **Local name:** *Biyon-chimbo* (Lepcha)
- b. **Distribution:** Eastern Himalayas of Sikkim and Nepal.
- c. **Size:** Head and body 14 inches; tail 16 inches.
- d. **Description:** It has an ashy-grey or grey-speckled head with large ears and round eyes. Whole body with parachute and tail a mixture of blackish and golden yellow. The fur is soft and dense.

106. Parti-coloured Flying Squirrel (*Hylopetes alboniger*)

- a. **Local name:** *Khim* (Lepcha); *Piam-piyu* (Bhutia)
- b. **Distribution:** Nepal, Sikkim, Bhutan, Arunachal Pradesh to Southeastern Asia.
- c. **Distribution in Sikkim:** A creature of tropical and sub-tropical forests, it migrates slightly in search of food hence, the living areas can not be pin-pointed. Reported by Zoological Survey of India from Bakkhim.
- d. **Size:** Head and body 27-28 cm; tail 22-23 cm.
- e. **Description:** Also known as black and white flying squirrel and has more or less yellowish upper parts with blackish tinge. Under parts are creamish-white whereas feet and ears are flesh-coloured, frequents elevations from 800 to 1500 m.

107. Hairy-footed Flying Squirrel (*Belomys pearsoni pearsoni*)

- a. **Distribution:** Sikkim, Assam and Arunachal Pradesh.
- b. **Size:** Head and body 19-21 cm; tail 19-21 cm.
- c. **Description:** Upper part rich glossy reddish brown; the parachute blackish brown. Fur very fine soft and rather long. It has a characteristic pencil of long chestnut hairs that grow from the base of each ear conch. Home range lies between 800 to 1700 m.
- d. **Status:** Endangered, Schedule II, (1991).

108. Gray's Giant Flying Squirrel (*Petaurista nobilis nobilis*)

- a. **Distribution:** Darjeeling, Sikkim, Nepal and Bhutan.
- b. **Size:** Head and body 38-42 cm; tail 38-42 cm.
- c. **Description:** Saddle maroon with a middorsal stripe; undersurface salmon buff to flesh ochre; shoulder patch and sides of body yellow to orange buff.

Marmot: Common name for certain large rodents found in North America, Europe and Asia, characterised by blunt snout, a short bushy tail and short legs. The animal lives in burrows and hibernate during winter. The length of hibernation varies with the severity of the climate. The cry of marmot is a shrill whistle. They feed on vegetarian diet and at times may be destructive to cultivated crops.

109. Himalayan Marmot (*Marmota bobak himalayana*)

- a. **Local name:** *Potsammiong* (Lepcha); *Chibbi* (Bhutia)
- b. **Distribution:** Ladakh, Kashmir, Garhwal, Nepal and Sikkim.
- c. **Distribution in Sikkim:** Found in Cho Lhamu, Lhonak, Green lake, Lasher, Yumesamdong and reintroduced in Kyongnosla Alpine Sanctuary in 1992. Hibernate during winters and hence, can be seen during late spring, summer and early fall in the plateau.
- d. **Size:** Head and body 56-60 cm; tail 14-15 cm .
- e. **Description:** Stout bodied, short-tailed animal with a rudimentary thumb with flat nail. They are gregarious and terrestrial. Above cat-grey, rufescent yellow beneath; tail has a black tip. They live in burrows where they hibernate in winter months. They favour elevations ranging from 4000 to 5500 m. Roots, shoots, leaves, fruits and seeds form their staple diet.
- f. **Status:** Endangered, Schedule II, (1991).

110. Eastern Red Marmot (*Marmota hemachalanus*)

- a. **Local name:** *Sammiong* (Lepcha); *Chipi* (Bhutia)
- b. **Distribution:** Sikkim, Nepal, Bhutan and Arunachal Pradesh.
- c. **Size:** Head and body 32-33 cm; tail 13-14 cm.
- d. **Description:** Stout builds; short and round ears and a short tail. General colour dark-grey; tip of the tail and bridge of the nose dusky brown. Has a long claw. Sleep during the day and become active at night. This species does not hibernate during winters. Found at elevations between 2200 to 4000 m.
- e. **Status:** Endangered, Schedule II, (1991).

Rats and Mice: For most of us the word “mouse” or “rats” conjures up an annoying picture of the common household variety of these animals. It is a false picture. Quite a few of the wild members of this group are handsome little creatures beautifully furred, with ways and habits as fascinating as those of the tiger and the elephant. They are excellent survivors and have practically conquered the entire earth.

111. Lesser Bandicoot Rat (*Bandicota bengalensis bengalensis*)

- a. **Distribution:** From Himalayas to Cape Comorin.
- b. **Distribution in Sikkim:** The tropical regions of the state in the vicinity of agricultural fields.
- c. **Size:** Head and body 18-22 cm; tail 12-16 cm.
- d. **Description:** A rather large animal having rounded head and ears; and short, broad muzzle. When excited it erects the pile of its long hairs. The general colour of the coat is dark-greyish brown.
- e. **Status:** Endangered, Schedule V, (1991).

112. Bandicoot Rat (*Bandicota indica nemorivaga*)

- a. **Local name:** *Ka-lok-kyong* (Lepcha)
- b. **Distribution:** Lives in Western, Central and Eastern Himalayas including Assam and Myanmar.
- c. **Distribution in Sikkim:** Essentially parasitic on man, living in or about human settlements - gardens, compounds, stables and outhouses.
- d. **Size:** Head and body 30-38 cm; tail of about the same length.
- e. **Description:** Instantly recognised by their enormous size. Very much similar to the Mole rat in colour, form and habits, nevertheless it is much bigger. They do much damage because of strong burrowing habits.
- f. **Status:** Endangered, Schedule V, (1991).

113. Black Rat (Common House Rat) (*Rattus rattus brunneusculus*)

- a. **Local name:** *Ka lok* (Lepcha)
- b. **Distribution:** All over India.
- c. **Size:** Head and body 17-18 cm; tail 19-20 cm.

- d. **Description:** Muzzle pointed; eyes prominent; ears rather large and partially haired; no cheek pouches. Greyish black above, dark ashy beneath. Muzzle is sharp. One of the most successful survivors, has wandered far and wide almost all over the world. Feeds on a very large variety of food.
- e. **Status:** Endangered, Schedule V, (1991).

114. House Rat (*Rattus rattus tistae*)

- a. **Distribution:** Eastern Himalayas.
- b. **Size:** Head and body 15-16 cm; tail 17-18 cm.
- c. **Description:** Fur varies from brown to dark brown, but mostly grizzled brown. Very common in forests as well as houses.
- d. **Status:** Endangered, Schedule V, (1991).

115. Himalayan Rat (*Rattus nitidus nitidus*)

- a. **Distribution:** Eastern Himalayas.
- b. **Size:** Head and body 14-15 cm; tail 14-15 cm.
- c. **Description:** Dorsum brown to dark brown. Colour of venter varies widely from dirty white to dull grey.
- d. **Status:** Endangered, Schedule V, (1991).

116. Turkestan Rat (*Rattus turkestanicus rattoides*)

- a. **Distribution:** Central and Eastern Himalayas.
- b. **Size:** Head and body 15-16 cm; tail 17-18 cm.
- c. **Description:** A beautiful creature with soft, thick, dark brown fur. The Sikkim variety has much longer tail than of those found in Darjeeling.
- d. **Status:** Endangered, Schedule V, (1991).

117. Common House Mouse (*Mus musculus homourus*)

- a. **Distribution:** Throughout India.
- b. **Size:** Head and body 7-7.5 cm; tail 8-9 cm.
- c. **Description:** Characteristic long and coarse tail which is nude and thick at the base. Large eyes and small ears. Dusky reddish brown above; paler beneath. They are known to be excellent runners, athletes and acrobats.
- d. **Status:** Endangered, Schedule V, (1991).

118. House Mouse (*Mus musculus urbanus*)

- a. **Distribution:** Allover the country.
- b. **Size:** Head and body 7-7.5 cm; tail 8-9 cm.
- c. **Description:** Mostly collected from houses, occasionally from the field. Colour of undersurface varies from grey to brown and tail from wholly dark to bicolor.
- d. **Status:** Endangered, Schedule V, (1991).

119. Sikkim Mouse (*Mus pahari pahari*)

- a. **Distribution:** Darjeeling, Sikkim, Assam and Nagaland.
- b. **Size:** Head and body 7-7.5 cm; tail 7-7.5 cm.
- c. **Description:** Found in the forests at elevations as high as 1650 m.
- d. **Status:** Endangered, Schedule V, (1991).

120. Indin Bush Rat (*Golunda elloti elloti*)

- a. **Distribution:** Allover the country.
- b. **Size:** Head and body 7.5-8.5 cm; tail 7-7.5 cm.
- c. **Description:** Fur is dark dusky coloured. Generally lives under large stones.
- d. **Status:** Endangered, Schedule V, (1991).

121. White-bellied Rat (*Niviventer niviventer niviventer*)

- a. **Distribution:** Lower Himalayan ranges.
- b. **Size:** Head and body 15-17 cm; tail equally long.
- c. **Description:** Upper portion blackish brown, shaded with rufous. Below entirely pure white. Not very common. Specimen collected from Darjeeling also.
- d. **Status:** Endangered, Schedule V, (1991).

122. Ghose's White-bellied Rat (*Niviventer niviventer monticola*)

- a. **Distribution:** Darjeeling.
- b. **Size:** Head and body 12-13 cm; tail 17-18 cm.
- c. **Description:** Common. It occurs in wet evergreen forest, with abundant undergrowth, or forests consisting of rhododendron and silver fir.
- d. **Status:** Endangered, Schedule V, (1991).

123. Chestnut Rat (*Niviventer fulvescens fulvescens*)

- a. **Distribution:** Lower eastern Himalayas.
- b. **Size:** Head and body 14-15 cm; tail distinctly longer than the body.
- c. **Description:** Upper part of the body fine bright cinnamon coloured with inconspicuous black tips. Under parts are milky white at times with creamy tinge. Ears are long and distinct.
- d. **Status:** Endangered, Schedule V, (1991).

124. Little Himalayan Rat (*Niviventer eha eha*)

- a. **Distribution:** Nepal, Darjeeling and Sikkim.
- b. **Size:** Head and body 10 cm; tail 17-18 cm.
- c. **Description:** Common in Rhododendron forests.

- d. **Status:** Endangered, Schedule V, (1991).

125. Edwards' Rat (*Leopoldamys edwardsi edwardsi*)

- a. **Distribution:** Eastern Himalayas.
- b. **Size:** Head and body 9-10 cm.
- c. **Description:** A rare creature. Not much is known about it.
- d. **Status:** Endangered, Schedule V, (1991).

126. Long-tailed Tree Mouse (*Vandeleuria oleracea dumeticola*)

- a. **Distribution:** Common in the lower Himalayas.
- b. **Size:** Head and body 7-7.5 cm; tail 12-13 cm.
- c. **Description:** Fur is rich chestnut-red in colour though face is light brown. Under parts white with yellowish tinge. Its food consists of tender shoots, buds, fruits and leaves. Displays no partiality between trees and shrubs. The long tail is a wonderful asset for climbing trees.
- d. **Status:** Endangered, Schedule V, (1991).

127. Millard's Rat (*Dacnomys millardi millardi*)

- a. **Distribution:** Nepal, Darjeeling, Assam and Nagaland
- b. **Size:** Not ascertained.
- c. **Description:** Large heavily built rat, with rather harsh fur; dark greyish above, silvery grey below.
- d. **Status:** Endangered, Schedule V, (1991).

128. Bay Bamboo Rat (*Cannoyms badius badius*)

- a. **Distribution:** Nepal, Sikkim, Bhutan, Arunachal Pradesh
- b. **Size:** Head and body 17-18 cm; tail 6-7 cm.

- c. **Description:** Form robust; eyes very small; ears very short and naked tail rather short and skull broad. Fine and soft grey fur with brownish-pale muzzle and chin. They live in burrows dug at the base of the tree and feed on young leaves, shoots and grass.
- d. **Status:** Endangered, Schedule V, (1991).

Voles: Under this heading comes a vast army of small, short-tailed rodents that far exceed in numbers any other group of mammals found in cool and temperate regions of the state. They and their kins are grass-eaters.

129. Sikkim Vole (*Pitymys sikkimensis*)

- a. **Local name:** *Phalchua* (Nepali); *Singphuci* (Bhutia)
- b. **Distribution:** Nepal, Sikkim and Bhutan.
- c. **Size:** Head and body 12-13 cm; tail 3.3-3.5 cm.
- d. **Description:** Muzzle blunt; fore-feet small, with short claws; soles naked. This animal has a dark brown fur, which is soft and silky with underparts having a pale hue. It is quite at home at elevations ranging from 2100 to 3700 m where in forests and pastures it resides in the hollow of trees.
- e. **Status:** Endangered, Schedule V, (1991)

130. Royle's Vole (*Alticola roylei*)

- a. **Distribution:** Higher elevations of Himalayas, Kashmir, Ladakh and Tibet.
- b. **Distribution in Sikkim:** Occurs in open areas, pastures and rocky tracts above the elevations of 3000 m.
- c. **Size:** Head and body 8-10 cm.
- d. **Description:** The muzzle is short; the head rounded and the ears small. The fur very close and dense is of brown colour. It is mainly a burrower and is well adapted to the hard diet of coarse grasses and roots.
- e. **Status:** Endangered, Schedule V, (1991).

131. Crestless Porcupine (*Hystrix hodgsonii*)

- a. **Local name:** *Sathung* (Lepcha); *Anchotia dumsi* (Nepali)
- b. **Distribution:** Nepal, Sikkim, Bhutan, Arunachal Pradesh and further East.
- c. **Size:** Head and body 60 cm; tail 10-12 cm.
- d. **Description:** Different from other species in being much smaller, crestless and having longer tail. Inhabit elevations below 1000 m. They are rare in being monogamous, the pair living together in burrows built by them. It is easily tamed and is a not so uncommon pet in these parts. Its flesh is considered a delicacy.
- e. **Status:** Endangered, Schedule V, (1991).

HARES AND MOUSE-HARES

Hares: Proverbially among the most harmless and peace loving of animals, the hares and rabbits are seldom if ever found in an act of aggression. True rabbits are not found in our country. Their closest relative - the hispid hare has been reported from Sikkim by Zoological Survey of India. They are herbivores and feed on vegetable material.

132. Rufous-tailed Hare (*Lepus nigricollis ruficaudatus*)

- a. **Local name:** *Jarayo* (Nepali); *Sueng* (Lepcha)
- b. **Distribution:** Sikkim, Bhutan and Arunachal Pradesh.
- c. **Distribution in Sikkim:** Upto the elevations of 2700 m. reported by Zoological Survey of India from Yuksom area.
- d. **Size:** Head and body 50 cm; tail 10 cm; ear 12-13 cm; weighs about 2-3 kg.
- e. **Description:** Upper part rufescent yellow, mottled with black; chin, abdomen, and inside of hind-limbs downy white. Chased by the predators they run into holes and hollow of the tree. They favour elevations below 2700 m and are not very sensitive to human activities and can be found near cultivated areas and pastures.
- f. **Status:** Endangered, Schedule II (1991).

133. Woolly Hare (*Lepus oiostolus*)

- a. **Local name:** *Lho suveng* (Lepcha)
- b. **Distribution:** Northern tracts of Nepal, Sikkim and Bhutan.
- c. **Distribution in Sikkim:** Sikkim plateau. Wide spread but not very common.
- d. **Size:** Head and body 55 cm; tail with hair 10-12 cm.
- e. **Description:** The fur as the name suggests is rather long, woolly, thick and curly. It is rufous brown in colour with light yellowish underparts. It usually restricts itself to colder areas almost always above the elevations of 3300 m.
- f. **Status:** Endangered, Schedule II (1991).

134. Hispid hare (*Caprolagus hispidus*)

- a. **Distribution:** North Bengal, Sikkim, Assam, Tripura and Nepal.
- b. **Size:** Head and body 42-48 cm; tail 2.5 – 2.7 cm.
- c. **Description:** It appears dark brown because of intermix of black and brownish white hairs; brownish white below; tail brown and the ears are brown outside.

Pikas: It looks just like a miniature rabbit but its ears are not so lengthy, its hind legs are nearly as short as its forelimbs, and it lacks a tail. Its fur is finer than that of Rabbits. Posing on some high rock, the pika loves to bask in the warm sunshine and watch the valley below. But it moves quickly when need arises. It is an eater

135. Himalayan Mouse-Hare or Himalayan Pika (*Ochotona roylei*)

- a. **Local name:** *Gumchi peeche* (Bhutia)
- b. **Distribution:** On Himalayas from Kashmir to Sikkim.
- c. **Distribution in Sikkim:** Cho Lhamu, Lhonak valley, Kishongla, Thangu and Samdong. Very common at Cho Lhamu particularly from Leten enroute to Gurudongmar Lake and along the meadows of Chhomo Chu. Reported by Zoological Survey of India from Dzongri also.

- d. **Size:** Head and body 15-20 cm.
- e. **Description:** Its coat is rabbit grey or brown with a yellow tinge on shoulders, head and neck and white or pale underparts. Fur is soft and fine. Is found at the elevations of 2400 to 4000 m living in open, rocky tracts near the tree line. They principally feed on grasses, shoots, roots, flowers and seeds. Ears elliptical with rounded tops.
- f. **Status:** Endangered, Schedule II, (1991).

136. Moupin Pika (*Ochotona thibetana sikimaria*)

- a. **Distribution:** Cold deserts of Ladakh and Sikkim.
- b. **Size:** About 45 cm.
- c. **Description:** Animal of small size and robust shape; short-eared and tailless. Pale buff above, sides being more rufous; ears large and oval. Under parts white with faint yellow tinge. Limbs and soles of feet white. Fur long, fine and silky. It exhibits a definite preference for high elevations ranging between 4500 to 6000 m.
- d. **Status:** Endangered, Schedule II, (1991).

ELEPHANT

137. Indian Elephant (*Elephas maximus*)

- a. **Distribution:** Western Ghats, Orissa, Bihar, U.P., West Bengal, Assam and other North-Eastern States.
- b. **Distribution in Sikkim:** They had been reported from Pangolakha many years ago when Darjeeling, Kurseong and Kalimpong were a part of Sikkim. They may have migrated from West Bengal to the then Sikkim Himalayas. Though they usually do not ascend to more than 1000 m elevations, at Sikkim their tracks have been seen in the snow at 3660 m. above sea level!!!
- c. **Size:** Height at shoulders about 3-3.2 m; Weight 5000 kg.
- d. **Description:** The Indian Elephant is smaller than the African one. Its ears are smaller and its trunk ends in a single lip in contrast with two lips in the African species. Generally only males have the tusks, which may grow as long as 9-10 feet. They feed on grass, leaves, stems, bamboos and plantains.

138. Kiang or Tibetan Wild Ass (*Equus kiang polydon*)

- a. **Local name:** *Kiang* (Tibetan)
- b. **Distribution:** Cold desert tracts of Ladakh, Sikkim and Tibet.
- c. **Distribution in Sikkim:** Chho Lhamu, Gyamchhona, Chulung valley, Yumchho, Kerang. The animals have been reported to migrate freely via two or three passes such as the Chhulung La, Bamchho La and Sesse La forming the international border between Sikkim and Tibet. The kiang numbers c. 4-60 in Sikkim.
- d. **Size:** Shoulder height about 1.25 m.
- e. **Description:** An elusive horse like animal, always found in herds that graze on the alpine pastures in summer and retreat to the shelter of the valley bottom in winter. It is larger than Onager, the other Indian wild ass of Gujarat and has shorter ears, which make it resemble a horse. Dark sandy coat has lighter, almost white under parts. It has been found at elevations as high as 5200 m also.
- f. **Status:** Endangered, Schedule I, (1991).

PIGS

Often the butt of many jokes, these animals, unlike their reputation suggests, are intelligent, courageous and dignified beings. An elongated head with an abruptly truncated mobile snout is distinctive in pigs. Though thought to be purely herbivorous, they do eat insects, snakes(!) and even dead bodies.

139. Indian Wild Boar (*Sus scrofa*)

- a. **Local name:** *Banel* (Nepali)
- b. **Distribution:** Throughout India.
- c. **Distribution in Sikkim:** Melli RF, Kitam, Soreng RF, Lagyap RF, Premlakha and Rangpo.
- d. **Census:** 1993, recorded 16 wild boars.
- e. **Size:** Head and body 1.5-1.6m; tail 30 cm; shoulder height 75-90 cm.

- f. **Description:** These animals have a large head and are brownish-black in colour. The hairs on the coat are rather coarse and scanty. They possess a prolonged snout, flexible at the end and enable the animal to plough the ground in search of roots. It is one of the most courageous animal, at times forces even a tiger to retreat.
- g. **Status:** Endangered, Schedule III, (1991).

140. Pygmy Hog (*Sus salvanius*)

- a. **Local name:** *Sano-Banel* (Nepali)
- b. **Distribution:** Assam, Sikkim and Nepal.
- c. **Distribution in Sikkim:** Has not been observed for very many years now. Last it was seen in areas which are no longer the part of Sikkim. Unconfirmed reports suggest it may still exist in South Sikkim.
- d. **Size:** Head and body 45-50 cm; height 20-25 cm; weight 4-5 kg.
- e. **Description:** Closely resembles a young hog in size and shape. Head conical; ears small, erect and hairy; tail very short and has practically no mane. Usually found in herds led by a fearless male. One of the rarest animals in the world.
- f. **Status:** Endangered, Schedule I, (1991).

WILD OXEN

Oxen: Yak and Indian Bison are the representatives of this family in Sikkim. They are easily recognizable by their massive build and their general similarity to domestic cattles. They are purely herbivorous in nature. Gaur and Yak are admirable climbers ascending the steepest slopes with speed and facility.

141. Yak (*Bos grunniens grunniens*)

- a. **Local name:** *Dong* (Domestic) and *Brong dong* (Wild) (Tibetan); *Chouri gai* (Nepali)
- b. **Distribution:** Limited to Northern Ladakh, plateau of Tibet and Sikkim.

- c. **Distribution in Sikkim:** Wild yaks are no longer found in the state. The domesticated animals are found in Yumthang, Lachen, Lachung, Cho Lhamu, Lhonak, Lasher, Gnathang, Kupup and other places of similar elevations.
- d. **Size:** Height 1.5-1.7 m; horns 65-75 cm long.
- e. **Description:** It is a massive animal with a drooping head, high humped shoulders, a straight back and short sturdy limbs. Shaggy fringes of hair hang from its flanks, cover chest, shoulder, thigh and the lower portion of the tail and form a mane upon its neck. The colour of the Yak is blackish-brown with a white muzzle.
- f. **Status:** (Wild Yak) Endangered, Schedule I (1991).

142. Indian Bison (*Bos gaurus gaurus*)

- a. **Local name:** *Gaur gai* (Nepali); *Sapyuk* (Lepcha); *Tsolang* (Bhutia)
- b. **Distribution:** India and Southeastern Asia.
- c. **Distribution in Sikkim:** It was reported being sighted at Pangolakha and Rache la some years ago. Presently, it is confined to Regu in East Sikkim.
- d. **Size:** Shoulder height 1.65-1.75 m; spread of horns about 80 cm.
- e. **Description:** It has a huge head, massive body and sturdy limbs. It has a muscular ridge on its shoulders, which slopes down to the middle of the back, where it ends in an abrupt dip. The colour changes with age from golden-yellow to black.
- f. **Status:** Endangered, Schedule I, (1991).

GOATS AND SHEEP

Sheep: These also share very close resemblance with their domesticated kin. Over the mountains in Sikkim they are very much at home. Their ability to move about on steep cliffs is phenomenal. Their feet are perfectly built for speed and surety of movements. This is their surest defence also.

143. Great Tibetan Sheep or Nayan (*Ovis ammon hodgsoni*)

- a. **Local name:** *Nayan* (Male) *Nayanmo* (Female) Tibetan

- b. **Distribution:** Trans-Himalayan tract of Ladakh, Spiti, Upper Nepal and northern Sikkim.
- c. **Distribution in Sikkim:** Bamchhona, Gyamchhona, Kerang, Chulung valley, Cha la, Lhonak valley, Giagong area south of the plateau and Khangchendzonga National Park. A group of seven males were sighted on the slopes of Oloten area and another of 29 in Kerang.
- d. **Size:** Shoulder height 1.1-1.2 m; shoulders 0.9-1.0 m.
- e. **Description:** It is the largest of all the wild sheep. The male Nayan are dark earthy brown, lighter below; 1-inch tail; long hairs on throat and chin. Both male and females are horned but those of male are noticeably bigger at times reaching 48 inches in length and 22 inches in circumference. They are careful animals sticking to desolate plains and low undulating sandy hills where the climate is very harsh with dry hot summers and chilly windy winters.
- f. **Status:** Endangered, Schedule I, (1991).

144. Shapi or East Himalayan Tahr (*Hemitragus jemlahicus schaeferi*)

- a. **Local name:** *Shapi* (Bhutia); *Jharal* (Nepali); *Siphik* (Lepcha)
- b. **Distribution:** An endemic species of Sikkim.
- c. **Distribution in Sikkim:** Discovered in 1938 by Schaefer at Fimphu in Sikkim. Found in inaccessible areas, close to tree limits and snowy mountain tracts at Fimphu, Manandang (Bikmatar), above Rahi Chhu (Satdharey), Ruketchu, Ribongthang, Nimphu, Tsingnok, Lingjibok, and Khangchendzonga National Park. Have also been sighted at Aralungchowk in West Sikkim and Gomnay in East Sikkim. Population is not high. Related to Western Himalayan Tahr but is much bigger, shaggier, with a high rump and a muzzle like Takin. During winter months they descend and roam at the periphery of conifer-oak forests and bamboo forests. They quite often come out to the open land in search of grass and mineral deposits.
- d. **Size:** Height at shoulders 0.9-1.0 m; horns 30-36 cm.
- e. **Description:** Himalayan Tahr is a wild goat with a well-formed head, narrow erect ears, heavy body and long, robust limbs. The hair on head and face are short. The body is covered with a mass of

coarse, flowing hair. It's colour is reddish-brown. Horns are short and close-set and curve backwards.

- f. **Status:** Endangered, Schedule I, (1991).

145. Blue Sheep or Bharal (*Pseudois nayaur nayaur*)

- a. **Local name:** *Bharal* and *nervati* (Nepali); *Knao* (Bhutia)
- b. **Distribution:** Found in Ladakh, Kumaon, Sikkim and Nepal at altitudes of 5000 m.
- c. **Distribution in Sikkim:** Pangdin, Kangarten, Rangit valley, Yumesamdong, Lava, Lasher, Oloten area, Thela, Green lake, Marcopolo camp, Shibringu within Khangchendzonga National Park, Tamze, Thosa lake, Chimathang, Gochela, Lampokhari. Population density quite high.
- d. **Size:** Shoulder height 85-90 cm; horns 56-60 cm.
- e. **Description:** It resembles both sheep and goat in structure and habits. Its horns are rounded and smooth (marked with stripes) and curve backwards. The general colour of the head and upper part is brownish grey suffused with slaty blue. In rams a black stripe runs along the middle of each flank and down the front of the legs.
- f. **Status:** Endangered, Schedule I, (1991).

GOAT ANTELOPES

Goat-antelopes: As the name suggests, the members of this family (Serow, Goral and Takin) share close resemblance with goats on one hand and the antelopes on the other. They are purely mountainous animals and can be easily recognized by their distinctive conical horns.

146. Goral (*Nemorhaedus goral hodgsonii*)

- a. **Local name:** *Ra giyu* (Bhutia); *Suh-ging* (Lepcha)
- b. **Distribution:** Found in Sikkim, Nepal and Assam.
- c. **Distribution in Sikkim:** Found in rocky terrain throughout the state at elevations of 1850-3700 m. Population is fairly high. Common at Khangchendzonga National Park. May be seen at Kyongnosla, Fimphu and Pentong from April to October.

- d. **Census:** 1993, recorded 10 gorals.
- e. **Size:** Shoulder height 65-70 cm; horns about 12-13 cm.
- f. **Description:** The goral has a golden or rufous brown coat speckled with black. A black stripe runs along the back to the root of the tail. It has short horns that curve back and are marked with rings.
- g. **Status:** Endangered, Schedule III, (1991).

147. Serow (*Capricornis sumatraensis thar*)

- a. **Local name:** *Gya* (Bhutia); *Tahr* (Nepali)
- b. **Distribution:** Found in the Himalayas from Kashmir to the Mishmi hills of Assam.
- c. **Distribution in Sikkim:** Found in deep oak forests throughout the state at altitudes of 2200-3700 m. including Khangchendzonga National Park.
- d. **Census:** 1993, recorded 8 serows.
- e. **Size:** Shoulder height 1.0-1.1 m; horns 23-25 cm long.
- f. **Description:** The serow has a large head, donkey like ears and short limbs. The coat is coarse and may be black or blackish-grey. The limbs are chestnut above and dirty white below. Horns are black, conical and wrinkled.
- g. **Status:** Endangered, Schedule I, (1991).

148. Takin (*Budorcas taxicolor taxicolor*)

- a. **Distribution:** Eastern Himalayas.
- b. **Distribution in Sikkim:** Very rare. Perhaps an occasional migrant inhabiting dense bamboo and Rhododendron forests between 2000 to 3000 m. has been reported from Nimphu in North Sikkim, Pangolakha and Rache La in the East.
- c. **Size:** Shoulder height 1-1.1 m; head and body length 1.6-1.8 m.

- d. **Description:** It is a large, heavily built animal. Its face is convex, has angularly curved horns and very short thick legs. Its coat colour ranges from dark-brown to golden-yellow. Legs, tail, muzzle and dorsal stripe is black.
- e. **Status:** Endangered, Schedule I, (1991).

ANTELOPES AND GAZELLES

Antelopes and Gazelles: As a whole antelopes and gazelles are characterized by their graceful build. The horns, which may or may not be present in the females, are generally long and often lyre-shaped.. Characteristic of gazelles are the tufts of hair growing from the knees.

149. Tibetan Antelope or Chiru (*Pantholops hodgsonii*)

- a. **Local name:** *Tsus* (Male) and *Chus* (Female) Tibetan; *Chiru* (Bhutia)
- b. **Distribution:** Found in Tibet, Sikkim and Chanchen Mo valley in Ladakh.
- c. **Distribution in Sikkim:** Found in Chho Lhamu and Lhonak valley. During summers they migrate to Tibet only to return a few months later.
- d. **Size:** Shoulder height 80 cm; horns 60-65 cm long.
- e. **Description:** The Tibetan antelope has a swollen muzzle, which may be an adaptation to life at high altitude. Its body is covered with dense wool, which is generally pale fawn above and white below. Bucks have a black stripe down the front of each leg. The horns rise close together, diverge towards the tips and curve slightly forward. Females are hornless.
- f. **Status:** Endangered, Schedule I, (1991).

150. Tibetan Gazelle (*Procapra picticaudata picticaudata*)

- a. **Local name:** *Goa* (Tibetan); *Chhang* or *Nakchu* (Bhutia)
- b. **Distribution:** Inhabits North eastern Ladakh, the Tibetan plateau and Shensi.

- c. **Distribution in Sikkim:** Very rare. Chho Lhamu, the plateau region along Chhomo Chu, the meadow near Gyam Chhona (5,100 m) and in Chhangri meadow (4,000-4,500 m). The Gyam Chhona meadow has seen the largest population.
- d. **Size:** Height about 45 cm.
- e. **Description:** The coat of this graceful creature changes from slaty grey in summer to pale fawn in winter. White rump patches are distinctive. The horns rise vertically and curve sharply backwards.
- f. **Status:** Endangered, Schedule I, (1991).

DEER

Deer: The characteristic of this group of animals are their antlers, which they shed and regrow periodically. For most part, deer are the inhabitants of forests or grass jungles. They generally live in small groups consisting of one male and several females. Acute scent, hearing, and sight and speed of movement are the deer's essential means of escape.

151. Sikkim Stag (*Cervus elaphus wallichi*)

- a. **Local name:** *Shou* (Tibetan)
- b. **Distribution:** Erstwhile Sikkim; Lhasa, Tibet.
- c. **Distribution in Sikkim:** Possibly extinct in Sikkim. Last observed in 1980s in and around Pangolakha area. In Tibet it came out of extinction in 1988 when George B. Schaller rediscovered it in alpine meadows about 75 miles east of Lhasa.
- d. **Size:** Height at shoulder 1.4-1.5 m; head and body 2.3 m; tail 13 cm.
- e. **Description:** A very large sized animal with pale rufous coat during summer, which changes to a rich grey in winter. Has a magnificent pair of horns. The male has very long and shaggy hair on the lower part of the neck.

152. Mouse Deer (*Tragulus meminna*)

- a. **Distribution:** India and Far East.

- b. **Distribution in Sikkim:** Was reported from Bagua many years ago when Darjeeling, Kurseong and Kalimpong were a part of Sikkim. However, now it probably does not exist within the state.
- c. **Size:** Shoulder height 25-30 cm.
- d. **Description:** It is a tiny, shy creature with very slender limbs. Its coat is olive-brown speckled with yellow. The flanks are marked with rows of buff or white spots, which elongate into bands. The underside is white and the throat has three white stripes.
- e. **Status:** Endangered, Schedule I, (1991).

153. Musk Deer (*Moschus moschiferus*)

- a. **Local name:** *Kasturi mrig* (Nepali); *La lalwa* (Tibetan); *Lao* (Bhutia)
- b. **Distribution:** Lives in inaccessible birch forests above the pine tree zone in the Himalayas of Kashmir, Sikkim and Uttar Pradesh.
- c. **Distribution in Sikkim:** Throughout Khangchendzonga National Park at Tholong, Rivonthang, Mangdang, Kishongla, Gochela, Lampokhari, Pangdin, Kangarten, Rangit valley, Pemalatso bikmatar, Thepala, Kasturi orar and Kuthang. Also at Botang La and Doka La in East Sikkim. Two varieties of musk deer were reported from KNP, one of which, the **Forest Musk Deer** is usually found in the birch and fir forests at elevations of 2800-4000 m. The other, the **Alpine Musk Deer** is normally found in alpine regions at elevations of 4200 to 5000 m. The former has a dark greyish fur with large musk glands. The latter is ashy-grey with smaller glands but having great medicinal value. Population is supposedly moderate to high.
- d. **Census:** 1993, Recorded 1 Musk Deer.
- e. **Size:** Shoulder height 45-50 cm.
- f. **Description:** It is a small creature, which has no face-glands. The male has a caudal and a musk gland in the abdomen. The feet are well adapted to make the animal agile. Horns are absent but are compensated by the great development of the canine teeth, particularly in the males. Hair is thick and bristly, a shade of dark brown speckled with grey.
- g. **Status:** Endangered, Schedule I, (1991).

154. Barking Deer or Muntjac or Rib-faced Deer (*Muntiacus muntjak vaginalis*)

- a. **Local name:** *Suko* (Lepcha); *Khasha* (Bhutia); *Ratwa* (Nepali)
- b. **Distribution:** Indo-Malayan countries.
- c. **Distribution in Sikkim:** About three varieties are found; one dark red rufous coloured, the other black and a third one white. Found throughout the state at elevations of 600-2800 m. Population is fairly high particularly in the Khangchendzonga National Park.
- d. **Census:** 1993, recorded 27 Muntjacs.
- e. **Size:** Shoulder height 0.75-0.9 m tall; antlers 2-3 inches long.
- f. **Description:** It is dark brown in colour. The upper canines of the males are well developed and are often used for self-defense. The antlers are small. The chin, throat and the inside of the legs are white.
- g. **Status:** Endangered, Schedule III, (1991).

155. Spotted Deer (*Axis axis axis*)

- a. **Distribution:** Himalayan Foothills and Madhya Pradesh and some other regions of the country.
- b. **Distribution:** Regions adjoining Bengal and Bhutan.
- c. **Size:** Stand 0.9 m at shoulders.
- d. **Description:** Its coat is a bright rufous-fawn profusely spotted with white. Old bucks are more brownish in colour and darker. The graceful antlers have three tines.

PANGOLIN

Pagolins: It is one of the rarest animals and is most unfamiliar also. From the head to the tip of the tail it is covered with large, overlapping and rather pointed scales. The pangolin is a master of the art of self-defense. When the animal sees danger at hand it assumes an on-guard position by rolling itself into a ball. At the same time the pangolin erects its scales, presenting an array of knifelike blades. Pangolins are

peace loving, but, if they must fight, they will, and with singular effectiveness. They love feeding on ants.

156. Chinese Pangolin (*Manis pentadactyla aurita*)

- a. **Local name:** *Salik* (Nepali)
- b. **Distribution:** Nepal, Sikkim, Assam, Myanmar and South China.
- c. **Distribution in Sikkim:** Not ascertained. Extremely rare.
- d. **Size:** Head and body 48-55 cm; tail 32-38 cm.
- e. **Description:** Most distinctive character of a pangolin is its armour of protecting scales, which cover its body, limbs and tail. In defense the animal curls itself into an armoured ball, which is very difficult to unroll.
- f. **Status:** Endangered, Schedule I, (1991).

RIVERINE (FRESH WATER) MAMMALS

Fresh Water Mammals: Vague stories of “mermaids” from Rangpo and Singtam region suggest the possibility of the existence of some kind of riverine mammal in Sikkim also. Immediate efforts are required to confirm such a possibility. Gangetic Dolphin will not exactly be out of its range if it is found to exist in our state. It is a creature found in the Ganges, the Brahmaputra and their larger tributaries to the bases of the hills. Their migratory behaviour, however, makes their presence possible here, particularly during the summer months.

157. Gangetic Dolphin (*Platanista gangetica*)

(Included on the basis of unconfirmed reports)

Distribution: Found in the Ganges, the Brahmaputra, the Indus and their tributaries.

Distribution in Sikkim: May exist at Singtam, Rangpo and Melli (the confluence of Teesta and Rangeet).

Size: Generally 2 m in length.

Description: The body of the blind animal is fusiform, the head being prolonged into a compressed beak. The colour ranges from dark lead to sooty black. The older individuals have light patches on the sides.

Status: Endangered, Schedule I, (1991).

List of References:

Avasthe, Ravikant, 1998 "Surveys in the high priority biologically rich areas of North Sikkim". p. 30.

Bhadauria, S.B.S., "State Forestry Action Plan, Sikkim". p. 97.

Blandford, W.T. "The Fauna of British India, Mammalia".

Lachungpa C., 1993 "Shapi", *Panda*, Newsletter, Forest Department, Government of Sikkim. Inaugural Issue, p. 7-9.

Lachungpa, Usha, 1994 "Southern Kiang not Extinct in Sikkim" *Panda* Newsletter Forest Department, Government of Sikkim. Vol.1 No. 2, p. 24-26.

Lepcha, Gut, 1994 "The Shapi - Our Rarest Animal", *Panda* Newsletter Forest Department, Government of Sikkim. Vol.1 No. 2, p. 16-18

Poudyal, T.R., 1993 "Green Lake expedition", *Panda*, Newsletter, Forest Department, Government of Sikkim. Inaugural Issue. p. 2-6.

Pradhan, H.P., 1993 "Ecology of Musk Deer", *Panda*, Newsletter, Forest Department, Government of Sikkim. Inaugural Issue p. 26-27.

Prater, S.H. 1993 "The Book of Indian Animals", 3rd edition, 4th impression. p. 324.

Shah, Nita V., 1994 "Status Survey of Southern Kiang in Sikkim". p. 19.

Siktel, B.S., 1993 "Leopard at large in South Sikkim", *Panda*, Newsletter, Forest Department, Government of Sikkim. Inaugural Issue, p. 24-25.

Sterndale, Robert A., 1982 "Mammalia of India". First Indian reprint, p. 540.

Zoological Survey of India, 1992 "Fauna of West Bengal" Part 1. p. 439.