



Endangered Mammals OF India

BY

KESHAV Ravi



PALO ALTO
HUMANE
SOCIETY



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PREFACE

In the whole world, there are more than 30,000 species threatened with extinction today. One prominent way to raise awareness as to the plight of these animals is, of course, education.

I have always been interested in wildlife, from extinct dinosaurs to the lemurs of Madagascar. At my ninth birthday, one personal writing project I had going was on endangered wildlife, and I had chosen to focus on India, the country where I had spent a few summers, away from my home in California.

Just as I began to explore the International Union for Conservation of Nature (IUCN) Red List species for India, I realized quickly that the severity of threat to a variety of species was immense. It was humbling to then realize that I would have to narrow my focus further down to a subset of species—and that brought me to this book on the Endangered Mammals of India.

My hope with this effort is to urge ordinary humans to make day-to-day efforts within their capacity to preserve the natural habitats of the various animal species around us and appreciate that we all must co-exist in the web of life.

ABOUT THE AUTHOR

Keshav Ravi is a caring and compassionate third grader who has been fascinated by nature throughout his childhood. Keshav is a prolific reader and writer of nonfiction and is always eager to share what he has learned with others.

Outside of his family, Keshav is thrilled to have the support of invested animal advocates, such as Carole Hyde and Leonor Delgado, at the Palo Alto Humane Society.

Keshav also wishes to thank Ernest P. Walker's encyclopedia (Walker et al. 1975) *Mammals of the World* for inspiration and the many Indian wildlife scientists and photographers whose efforts have made this work possible.



Keshav Ravi: San Francisco Zoo Lemur Forest 2019

INTRODUCTION

Animals around the world are becoming endangered. Some have been pushed to the very edge of extinction because of habitat loss, overhunting, human population growth, or other threats.

- Animals whose homes are the Arctic, Antarctic, and the Himalayas are losing the cold icy habitat they depend on to **global warming**.
- In parts of Asia and Africa, **pangolins** are killed in mass for their scales, used in traditional Chinese medicine.
- The **Nilgiri Tahr**, native to the Eastern and Western Ghats of India, is severely **threatened by invasive species, diseases, and agriculture**.

Countless other animals are in similar plights, threatened with extinction.

Today, fortunately, several efforts are under way to raise awareness as to the dangers these animals face and to save them. Nevertheless, access to knowledge of endangered mammals is fairly limited in a regional setting, particularly in developing countries such as India. Few books exist on the animals mentioned, but none are easily accessible to the general public.

This book presents information on the endangered mammals of India, at imminent risk of disappearing forever from our world. I have chosen to focus on the top three categories of the International Union for Conservation of Nature (IUCN) Red List of endangered animals: **Critically Endangered, Endangered, and Vulnerable, in descending order of their degree of risk of extinction** in the wild (extremely high, very high, and high). Additional categories outside of the immediate scope of this work include Threatened, Near-Threatened, Least Concern, and Data Deficient. For details on the categories and their defined criteria, please visit the IUCN webpage at iucnredlist.org

My **focus on mammals alone** as the endangered species for this project was mainly to focus the reader's attention on one species and to keep the animals presented in the project at a number that is not overwhelming to consume.



Asiatic Cheetah: Mohammad Farhadinia/Iranian Cheetah Society (Farhadinia et al. 2016)

Asiatic Cheetah

Acinonyx jubatus venaticus

Critically Endangered

(none in India, but ongoing reintroduction efforts)

Weight: 75–119 lb (34–54 kg)

Height: 2.6 ft (0.7 m)

Length: 3.6 ft–4.5 ft (1–1.3 m)

The last 3 Asiatic cheetahs were shot by Maharaja Ramanuj
Pratap Singh Deo in 1925.

Today only a small population survives in Iran.



Elvira Rat (Large Rock Rat): Zoological Survey of India (Kishwan J and Venkataraman 2011)

Elvira Rat
(Large Rock Rat)
Cremnomys elvira

Critically Endangered

Weight, Height: not precisely known
(small mammal, size <1kg)

Length: 5.8 in (15 cm)

The Elvira Rat is found only in rocky areas of dry deciduous scrub forests in The Eastern Ghats of Tamil Nadu, India.
One of the Elvira Rat's main threats is mining.

OTHER RATS

Kondana Rat
(*Millardia kondana*)
Endangered

Manipur Bush Rat
(*Hadromys humei*)
Endangered

Miller's Nicobar Rat
(*Rattus burrus*)
Endangered

Ranjani's Field Rat
(*Rattus ranjinae*)
Endangered

Andaman Rat
(*Rattus stoicus*)
Vulnerable

Sahyadris Forest Rat
(*Rattus satarae*)
Vulnerable

Zelebor's Nicobar Rat
(*Rattus palmarum*)
Vulnerable



Andaman Shrew: Zoological Survey of India (WildlifeAlliance, Kishwan J and Venkataraman 2011)

Andaman White-toothed Shrew

Crocidura andamanensis

Critically Endangered

Weight, Height: not precisely known
(small mammal, size <1kg)

Length: ~2.5–3.5 in (60–90 mm)

The Andaman Shrew is endemic to South Andaman Island, India, and is usually nocturnal. It inhabits tropical moist deciduous and evergreen forests, where it dwells in leaf litter and rock crevices. Agriculture as well as residential and commercial development pose a threat to the Andaman shrew.

OTHER SHREWS

Jenkins's Shrew
(*Crocidura jenkinsi*)
Critically Endangered

Nicobar Shrew
(*Crocidura nicobarica*)
Critically Endangered

Day's Shrew
(*Suncus dayi*)
Endangered

Kelaart's Long-clawed
Shrew
(*Feroculus feroculus*)
Endangered

Andaman Spiny Shrew
(*Crocidura hispida*)
Vulnerable

Asian Highland Shrew
(*Suncus montanus*)
Vulnerable

Nicobar Treeshrew
(*Tupaia nicobarica*)
Vulnerable



Kolar Leaf-nosed Bat: Aditya Shrinivasulu (Srinivasulu et al. 2014)

Kolar Leaf-nosed Bat

Hipposideros hypophyllus

Critically Endangered

Weight, Height, Length: not precisely known
(small mammal, size <1kg)

The Kolar Leaf-nosed Bat is a species of bat in the family *Hipposideridae*. It is threatened by mining and logging. The Kolar Leaf-nosed bat is endemic to India, where its population is comprised of only 200 individuals, all found in only one Indian cave.

OTHER BATS

Andaman Horseshoe Bat
(*Rhinolophus cognatus*)
Endangered

Salim Ali's Fruit Bat
(*Latidens salimalii*)
Endangered

Nicobar Flying Fox
(*Pteropus faunulus*)
Endangered

Khajuria's Leaf-nosed Bat
(*Hipposideros durgadasi*)
Vulnerable

Mandelli's Mouse-eared
Myotis
(*Myotis sicarius*)
Vulnerable



Red Panda: Achyut Aryal (Panthi et al. 2012)

Red Panda

Ailurus fulgens

Endangered

Weight: 8.8–13.3 lb (4–6.5 kg)

Length: 1.6–2.2 ft (0.5–0.7 m)

There are only 10,000 Mature Red Pandas in the world, and the population continues to decline due to habitat loss and poaching. Studies show that the Red Panda prefers to live near water.



Nilgiri Long-tailed Tree Mouse: Sandeep Das(Nameer 2015)

Nilgiri Long-tailed Tree Mouse

Vandeleuria nilagirica

Endangered

Weight, Height: not precisely known
(small mammal, size <1kg)

Length: 2.1–3.3 in (5.5–8.5 cm)

The Nilgiri Long-tailed Tree Mouse is endemic to the Western Ghats of India. It is assessed as endangered because its range is only 310.5 sq miles. Logging and pollution are the mouse's foremost threats.

OTHER MICE/VOLES

Servant Mouse
(*Mus famulus*)
Endangered

Malabar Spiny Tree Mouse
(*Platacanthomys lasiurus*)
Vulnerable

Central Kashmir Vole
(*Alticola montosa*)
Vulnerable



Wild Water Buffalo: Ram Thapa (Thapa et al. 2020)

Wild Water Buffalo

Bubalus arnee

Endangered

Weight: 660–1200 lb (300–550 kg)

Height: 3.9–4.4 ft (1.2–1.4 m)

Length: 8.7 ft (2.6 m)

The number of mature individuals as of 2020 is only 2,500, and the number is decreasing. They live only in small areas in India, Myanmar, and Nepal.

OTHER BULLS/YAKS

Wild Water Buffalo
(*Bubalus arnee*)
Endangered

Gaur
(*Bos gaurus*)
Vulnerable

Domestic Yak
(*Bos mutus*)
Vulnerable



Wild Water Buffalo: Ram Thapa (Thapa et al. 2020)

Hispid Hare

Caprolagus hispidus

Endangered

Weight: 4.5–5.5 lb (2–2.5 kg)

Height: 15–20 in (0.4–0.5 m)

Historically, the Hispid Hare's range extended from Uttar Pradesh through southern Nepal and the northern region of West Bengal to Assam and into Bangladesh. But today it is found in very little of its former range. In 2013, a Hispid Hare was recorded in Jaldapara Wildlife Sanctuary for the first time since 1984. Residential and commercial development threaten the Hispid Hare.



Western Hoolock Gibbon: Anil Kumar/Zoological Survey of India (Kumar 2018)

Western Hoolock Gibbon

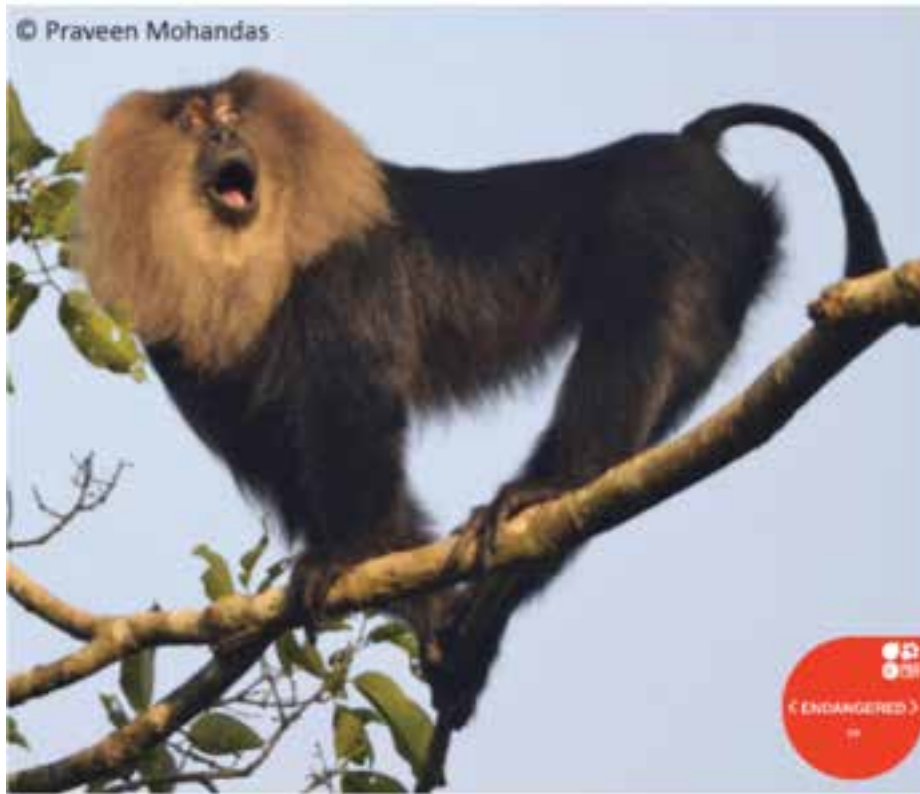
Hoolock hoolock

Endangered

Weight: 13.4–15.2 lb (6.1–6.9 kg)

Height: 2.6 ft (0.8 m)

Conservation actions are now the only thing that can save the Western Hoolock Gibbon from extinction. Threats to its survival include forest clearance for tea cultivation, slash-and-burn cultivation, capture for trade, and forest degradation. Agriculture and mining threaten the Western Hoolock Gibbon.



Lion-tailed Macaque

Macaca silenus

Endangered

Weight: 4.4–22 lb (2–10 kg)

Height: 1.25–2 ft (0.4–0.61 m)

The Lion-tailed Macaque is a small species of macaque. It inhabits moist, evergreen forests. It lives from the Kalakkadu Hills north to the Anshi Ghat in the states of Karnataka, Tamil Nadu, and Kerala.

Logging is the animal's main threat.

OTHER MACAQUES

Arunachal Macaque
(*Macaca munzala*)
Endangered



Indian Pangolin: Sandeep Das/Kerala Agricultural University, India (Nameer 2015)

Indian Pangolin

Manis crassicaudata

Critically Endangered

Weight: 29 lb (13.1 kg.)

Length: 1.8 ft (0.5 kg.)

The Indian Pangolin has become rare because of mass illegal killing for its meat and scales, which are used in traditional Chinese medicine.



Sangai: Swathi Tripathi/Birbal Sahni Inst. of Paleosciences India (Tripathi et al. 2019)

Eld's Deer (Sangai)

Rucervus eldii eldii

Endangered

Weight: 276–386 lb (125–175 kg)

Height: 5–6 ft (1.5–1.8 m)

Length: 5–6 ft (1.5–1.8 m)

The Eld's Deer is the state animal of Manipur, India, to which it is endemic. Roads and railroads, as well as residential and commercial development, are the deer's foremost threats.

OTHER DEER

Hog Deer
(*Axis porcinus*)
Endangered

Barasingha
(*Rucervus duvaucelii*)
Vulnerable

Four-horned Deer
(*Tetracerus quadricornis*)
Vulnerable

Sambar Deer
(*Rusa unicolor*)
Vulnerable



Himalayan Musk Deer: Achyut Aryal/Dhorpatan Hunting Reserve (Aryal and Subedi 2011)

Himalayan Musk Deer

Moschus leucogaster

Endangered

Weight: 24–40 lb (11–18 kg)

Height: 1.6–1.75 ft (0.48–0.53 m)

Length: 2.8–3.3 ft (0.85–1 m)

The Himalayan Musk Deer is protected in Nepal, Bhutan, and India.

In China, hunting of the animal is allowed in some areas, but only with a permit. Logging and residential and commercial development threaten the Musk Deer.

OTHER MUSK DEER

Kashmir Musk Deer
(*Moschus cupreus*)
Endangered



Nilgiri Tahr: Praveen Mohandas/Kerala Agricultural University (Nameer 2015)

Nilgiri Tahr

Nilgiritragus hylocrius

Vulnerable

Weight: 180–220 lb (80–100 kg.)

Height: 3.25 ft (0.9 m.)

Length: 5 ft (1.5 m)

The Nilgiri Tahr is endemic to Nilgiri Hills and the southern portion of the Eastern and Western Ghats in Tamil Nadu and Kerala. Invasive species, diseases, and agriculture are the Nilgiri Tahr's main threats.

OTHER GOATS/GORAL

Mouflon
(*Ovis orientalis*)
Vulnerable

Red Goral
(*Naemorhedus baileyi*)
Vulnerable

Takin
(*Budorcas taxicolor*)
Vulnerable



Bengal Tiger: Praveen Mohandas/Kerala Agricultural University, India (Nameer 2015)

Bengal Tiger

Panthera tigris tigris

Endangered

Weight: 717 lb (325 kg.)

Height: 3–3.6 ft (1 m.)

Length: 10 ft (3 m.)

The Bengal Tiger is at the top of the food chain in Indian forests. They are mainly solitary. Traces of them are rarely seen, except for pugmarks (pawprints or footprints). In the Indian subcontinent, tigers inhabit tropical moist evergreen forests, tropical dry forests, tropical and subtropical moist deciduous forests, mangroves, subtropical and temperate upland forests, and alluvial grasslands.



Pygmy Hog: Janani Pradhan/Orang National Park, Assam, India (Pradhan 2015)

Pygmy Hog

Porcula salvania

Endangered

Weight: 14.5–21.7 lb (6.6–9.7 kg)

Height: 9.8 in (25 cm)

Length: 1.8–2.3 ft (0.5–0.7 m)

The last of the Pygmy Hogs live only in Southern Bhutan and Assam, India. In 1995, the Pygmy Hog Conservation Program (PHCP) was started. The PHCP was established under a formal International Conservation Management and Research Agreement by the Durrell Wildlife Conservation Trust, the IUCN Pigs, Peccaries and Hippo Specialist Group, and others. Agriculture is one of the hog's threats.



Golden Langur: Kado Rinchen/Dept of Forests and Park Services, Bhutan (Thinley et al. 2019)

Gee's Golden Langur

Trachypithecus geei

Endangered

Weight: 18 lb (8.2 kg)

Height: 2 ft (0.6 m)

The Gee's Golden Langur is an Old World Monkey native to Western Assam. The main population is limited to 60 sq miles surrounded by the Brahmaputra River on the south, on the east by the Manas River, and on the west by the Sankosh River. Mining, quarrying, roads, and railroads are threatening the Gee's Golden Langur.

OTHER LANGURS

Kashmir Gray Langur
(*Semnopithecus ajax*)
Endangered

Black-footed Gray Langur
(*Semnopithecus hypoleucos*)
Vulnerable

Capped Langur
(*Trachypithecus pileatus*)
Vulnerable

Nilgiri Langur
(*Trachypithecus johnii*)
Vulnerable



Dhole at the Khangchendzonga Biosphere Reserve: Tawqir Bashir/Wildlife Institute (Bashir et al. 2014)

Dhole

Cuon alpinus

Endangered

Weight: 40 lb (18 kg)

Height: 1 ft (0.3 m)

Length: 3 ft (1 m)

The Dhole is a small canid closely related to the dog. Dholes may be small, but a pack of Dholes could take down prey 10 times larger than themselves. The Dhole is threatened by invasive species.



Indian Elephant: Praveen Mohandas (Nameer 2015)

Indian Elephant

Elephas maximus indicus

Endangered

Weight: 7.7 tons (~7 metric tons)

Height: 18–21 ft (5.5–6.4 m)

Length: 9.75–12 ft (3–4 m)

The second-largest land animal alive today, the Indian Elephant can reach 18–21 feet tall. The only animals larger than it is the African Savanna Elephant. An elephant can consume 330 lb (150 kg) of plant matter per day! Poaching is a major threat to the Indian Elephant population.



Asian small-clawed Otter: Abdul Aziz/Durrell Wildlife Conservation Trust (Aziz 2018)

Asian Small-clawed Otter

Aonyx cinereus

Vulnerable

Weight: 6–7.7 lb (2.7–3.5 kg)

Length: 2–3 ft (0.47–0.6 m)

Due to habitat loss and pollution, the Asian Small-clawed Otter is vulnerable to extinction.

It is nocturnal and lives in groups of up to 15 individuals.

Primary threats to the Asian Small-clawed Otter include loss of habitat due to tea and coffee plantations, loss of mangroves due to aquaculture, increased human settlement, and siltation of smaller hill streams due to deforestation.

OTHER OTTERS

Smooth-coated Otter
(*Lutrogale perspicillata*)
Vulnerable



Binturong: Rohit Naniwadekar/Namdapha National Park (Naniwadekar et al. 2013)

Binturong

Arctictis binturong

Vulnerable

Weight: 30–50 lb (13–22 kg)

Length: 2–3 ft (0.6–0.9 m)

The Binturong is omnivorous and feeds on small mammals, birds, fish, earthworms, insects, and fruits. It is arboreal. The binturong's habitat extends from India, Nepal, Bangladesh, Bhutan, Myanmar, Thailand, and Malaysia to Laos, Cambodia, Vietnam, and Yunnan in China, and from Sumatra, Kalimantan and Java in Indonesia to Palawan in the Philippines. Large-scale deforestation and opportunistic logging are the major threats to the Binturong.



Greater Hog Badger: Wildlife Alliance

Greater Hog Badger

Arctonyx collaris collaris

Vulnerable

Weight: 21 lb (9.5 kg)

Length: 2.3 ft (0.7 m)

The Hog Badger's population is in decline due to poaching. The subspecies *A c. collaris* lives in the Eastern Himalayas.



Sloth Bear: Anil Kumar Chhangani/Maharaja Ganga Singh University, Bikaner, Rajasthan, India(Chhangani 2002)

Sloth Bear

Melursus ursinus

Vulnerable

Weight: 121–231 lb (55–105 kg)

Height: 2–3 ft(0.6–1 m)

Length: 4.5–6.2 ft (1.4–1.9 m)

The Sloth Bear's diet consists of fruit, ants, termites, grubs, and a variety of plant matter.

It is classified as vulnerable mainly because of habitat loss.

OTHER BEARS

Asiatic Black Bear
(*Ursus thibetanus*)
Vulnerable

Sun Bear
(*Helarctos malayanus*)
Vulnerable



Nilgiri Marten: Navaneeth Kishor (Anil et al. 2018)

Nilgiri Marten

Martes gwatkinsii

Vulnerable

Weight: 4.5 lb (2.04 kg)

Length: 1.7 ft (0.5 m)

The Nilgiri Marten is endemic to the Western Ghats. It feeds on carrion, insects, and fruit. The Nilgiri Marten is threatened by large developmental projects. Prior to regulations, the Marten was hunted because of its destruction of the contents of bee boxes.



Snow Leopard: Thomas M. McCarthy/International Snow Leopard Trust (McCarthy and Chapron 2003)

Snow Leopard

Panthera uncia

Vulnerable

Weight: 72 lb (32.6 kg)

Height: 22 in (55 cm)

Length: 3.6 ft (1.1 m)

The Snow Leopard lives only in the Himalayas.

It is a solitary cat, usually having an extremely large territory.

Emerging threats include livestock depredation, prey declines, disease, illegal trade of their fur, and global warming

OTHER LEOPARDS

Clouded Leopard
(*Neofelis nebulosa*)
Vulnerable

Leopard
(*Panthera pardus*)
Vulnerable



Bengal Slow Loris: Nabajit Das/Primate Research Centre, Assam, India (Das 2009)

Bengal Slow Loris

Nycticebus bengalensis

Vulnerable

Weight: 2.5 lb (1.1 kg)

Length: 13 in (33 cm)

The Bengal Slow Loris is found in Bangladesh and Bhutan as well as India. It was originally classified as a subspecies of *Nycticebus coucang*, *Nycticebus coucang bengalensis*, but in 2001, it was given species status. Threats include farming, timber removal, human settlement, illegal trade for food, traditional medicine, sport, and the pet trade.

CONCLUSION

My intent in writing this book was two-fold: (1) To raise awareness of an imminent threat to mammals in the subcontinent of India and (2) to ensure broad reach, especially in a regional setting. With that intent, I defined the scope of my effort to focus on the three top IUCN Red List categories: Critically Endangered, Endangered, and Vulnerable. There are many more, including Near Threatened mammals, in India that I had to exclude. The list of endangered mammals surely does not end here.

My hope is that people reading this book will realize the importance of grassroots conservation efforts to save these animals before they disappear forever from our world. The challenge, and hope, is to rescue these animals and prevent others from becoming endangered.

Individuals can help by:

1. Conserving water and fuel.
2. Recycling paper and garbage.
3. Minimizing plastic usage.
4. Carpooling.
5. Demanding use of biodegradable packaging materials.
6. Supporting laws that protect the natural environment.

The younger generation too can contribute in many ways:

1. Join groups in their local communities that collect cans, bottles, newspapers, and other products that can be recycled.
2. Demand special recycling and compost bins in schools for lunch-box leftovers and papers used during school.
3. Write letters to food and beverage manufacturers, urging them to use recycled materials and reduce the amount of packaging around their products.
4. Organize cleanup drives at neighborhood parks, religious sites, streets, markets, railway stations, lakes, rivers, and beaches.

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Palo Alto Humane Society

PO Box 60715

Palo Alto, CA 94306

pahs@paloaltohumane.org

p 650.424.1901

www.paloaltohumane.org