

Part II Base knowledge on Mammals in Kon Plong

1 Explanation of the main species

Following figures and simple explanations on mammals are collected from various reports, advertised information on Internet home pages. These figures are belonging to the original home pages authors; therefore, this manual should be used only for assisting field officers of Vietnamese Forestry sector.

House Shrew (*Suncus murinus* (Linnaeus))

Class:Mammalia Order: INSECTIVORA Family:Soricidae

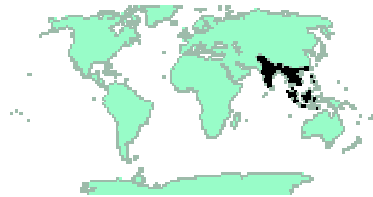


Photo by Scott Vogt

Tree Shrew (*Tupaia glis*)

Class:Mammalia Order:Scandentia Family:Tupaiaidae

Shrews are "squirrel-like" animals but differ in both anatomy and behavior. The tree shrew has a longer nose and no long black whiskers like squirrels. They are highly active, aggressive, and territorial creatures. While primarily arboreal, tree shrews frequently hunt on the ground for insects and lizards.

Diet: Insectivore Origin: Eastern India & Southeast Asia



Photo from brain museum (<http://brainmuseum.org>)

Malayan Flying Lemur (Colugo)(*Cynocephalus variegates*)

Class: Mammalia Order DERMOPTERA Family: Cynocephalidae

Oriental: Thailand and Indochina including the Malay

Peninsula, Sumatra, Java, Borneo, and many other small local islands.

Head and Body length= 330-420mm with a tail of 175-270mm. The distinctive feature of the colugo is the thin gliding membrane, or patagium, that connects the



thin arms, legs, the neck, and digits on the hands and feet.

Habitat: Completely arboreal. They inhabit multi-layered rainforests in hilly areas. They are often found in coconut, banana, and rubber plantations. Their habitat must contain many trees with few branches low on the trunk. They never voluntarily descend to the ground.

Short nosed fruit Bat or Dog faced fruit bat (*Cynopterus brachyotis*)

Class:Mammalia **Order** CHIROPTERA **Family:** Pteropodidae



The Dog faced fruit bat has a wingspan of 16 inches (40 cm) and weight is approximately 40 g.

The Dog faced fruit bat is a unique species in that it constructs roost tents out of the leaves of palm, bananas and other large leaf plants. By chewing the veins, the leaves collapse and form well engineered roosting cavities, protecting the bats from the elements and predators.

Distribution: Sri Lanka, Southeast Asia, Philippines and Indonesia

Tailless fruit Bat (*Megaerops ecaudatus*)

Class:Mammalia **Order** CHIROPTERA **Family:** Pteropodidae

M. ecaudatus has been found both in mountains and on plains, in evergreen and dry evergreen forest, ranging from 500 to 3,000 meters In the Malay Peninsula this species occurs in forest and open country and in lowlands and mountainous areas. Observations

in the Malay Peninsula suggest an extended breeding season from about February to June

Distribution :Southern Thailand, Malay Peninsula, Sumatra, Borneo



Megaerops ecaudatus: A. Ventral view; B. Dorsal view; C. Head showing tube nose.

Photos by Lim Boo Liat.

Great Himalayan L.N (*Hipposideros armiger*)

Class:Mammalia **Order** CHIROPTERA **Family:** Rhinolophidae

Head of *Hipposideros armiger terasensis* showing construction of nose leaf in the family Hipposideridae, photo by Robert E. Kuntz.

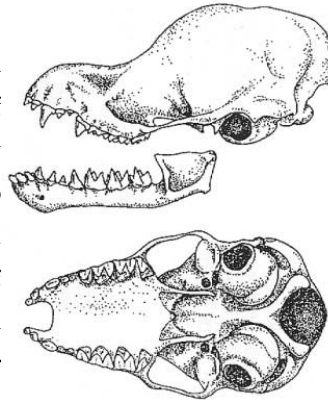
Johns Hopkins University



Whiskered Bat (*Myotis siligorensis*),

Class:Mammalia **Order** CHIROPTERA **Family:** Vespertilionidae

The smallest Old World species, weighs 2.3-2.6 grams. A species of *Myotis* of fairly small size: forearm length 30,6 - 34,3 (mean 32,35; n=13), condylobasal length of skull 11,99 - 12, 42 (mean 12,163; n=7), average body weight 4,07 gr. Margin of plagiopatagium attached to the middle of the metatarsus. Frontal part of skull distinctly elevated from low rostrum (as in *M. csorbai* and *M. siligorensis*). Both small upper premolars in tooth row and similar in shape unlike most of other species of *Myotis* (*Leuconoe*); pseudodiastem enlarged, P3 sometimes not in contact with posterior large premolar



Flat-headed Bat (*Tylonycteris pachypus*)

Class:Mammalia **Order** CHIROPTERA **Family:** Vespertilionidae

Head and body length is 35-50 mm, tail length is 24-33 mm, and forearm length is 22-33 mm. Listed weights of 3.5-5.8 grams for *T. pachypus* and 7.1-11.2 grams for *T. robustula*. Coloration is reddish brown or dark brown above and paler below.

The bats of this genus may be recognized by the greatly flattened skull and the presence of cushions or pads on the thumb and foot. The ears are about as long as the head, and the tragus is short and bluntly rounded at the tip. These bats are remarkably adapted for gaining access to and roosting in the hollow joints of bamboo stems. The small size and flattened skull facilitate their entrance through cracks in the stem, and the suction pads enable them to hang up in the joint.



Chiroptera Vespertilionidae Tylonycteris

Club-footed bat: (*Tylonycteris* sp.), photo by H.-G. Heller

Distribution: India to southern China and the Malay Peninsula, Sumatra, Java, Borneo, Philippines;

Pygmy slow loris (*Nycticebus pygmaeus*)

Class:Mammalia **Order** PRIMATES **Family:** Loricidae

N. pygmaeus is about the size of a large chipmunk. It is 6-10 inches (15-25 cm) long including its head and body. This animal weighs approximately 1 kg (2 lbs).

The wooly coat of the pygmy slow loris is short and thick. The coloration ranges from light brownish gray to deep reddish brown. The individual hairs can have lighter tips. Often, a dark midline can be found along the neck and back. It is also possible for a light streak between the dark orbital rings to be present. Pygmy slow lorises are found in the thickest vegetation of tropical rainforests. They are also found in bamboo groves.



Oriental: Nycticebus pygmaeus is found in the secondary forests of many different countries including Vietnam, Laos, China, Thailand, and parts of Cambodia. This species is closely related to *Nycticebus coucang* and they share this geographic range.

http://members.tripod.com/uakari/nycticebus_pygmaeus.html

Old world monkey (*Macaca arctoides*) stumptailed macaque

Class:Mammalia Order PRIMATES Family: Cercopithecidae

This species has cheek pouches to carry food in while it forages. The average body mass for an adult male stumptailed macaque is around 7 kilograms, and for the females it is around 5 kilograms. This species has a dark brown pelage color, and the face is hairless and red in color. As from their name the stumptailed macaque has a relatively short tail.



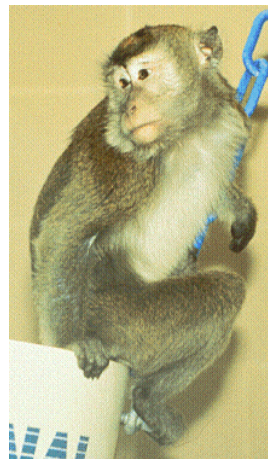
Distribution : The stumptailed macaque is found in the countries of Bangladesh, Bhutan, Burma, Cambodia, China, Laos, Thailand, and Vietnam. This species lives in tropical, monsoon, and subtropical evergreen broadleaf forests.

http://members.tripod.com/uakari/macaca_arctoides.html

Crab eating macaque(*Macaca fascicularis*)

Class:Mammalia Order PRIMATES Family: Cercopithecidae

This species has cheek pouches to carry food in while it forages. The average body mass for an adult male crab-eating



macaque is around 6 kilograms, and for the females it is around 4 kilograms. The tail on this species is quite long. The crab-eating macaque is a frugivore: "An animal that eats fruit." species, but will also eat leaves, insects, grasses, seeds, flowers, buds, shoots, gum, sap, and bark. This species will also raid crops and eat the food such as rice and taro plants. The average group size for the crab-eating macaque is 30 individuals. This species is mostly spending much of its time in the forest canopy, but it occasionally comes down to the ground. This species is found in a variety of forest habitats throughout its range, it especially prefers edge habitats.

Distribution: found in the countries of Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Thailand, and Vietnam.

http://members.tripod.com/uakari/macaca_fascicularis.html

Rhesus macaque (*Macaca mulatta*)

Class:Mammalia Order PRIMATES Family: Cercopithecidae

Macaca mulatta live in a wide range of habitats, and show a great deal of adaptability. Some populations live in flatlands, while others, in north India and Pakistan, live in the Himalayas at elevations up to 3000 m. The average body mass for an adult male is around 6 kilograms, and for the females it is around 3 kilograms. The face, ears, and buttocks lack hair, and the buttocks are a reddish colour in both sexes. They are able to adapt to the hot, dry temperatures found in a desert, or to the cold winter temperatures which fall to well below the freezing point. They are omnivorous, and often eat roots, herbs, fruits, insects, crops, and small animals. The diet can also vary with the season.



Distribution: Most commonly found in western Afghanistan, through India to northern

Thailand. This species used to be abundant in southern China and Tibet before humans led to the dwindling of populations in these areas over the last sixty years.

http://animaldiversity.ummz.umich.edu/accounts/macaca/m._mulatta.html

University of Michigan

Pig-tailed macaque (*Macaca nemestrina*)

Class:Mammalia Order PRIMATES Family: Cercopithecidae

This species has cheek pouches to carry food in while it forages. The body mass for adult male pigtailed macaques range from 10 to 14 kilograms, and for the females it ranges from 5 to 11 kilograms. This species has a relatively short tail compared to other macaques.



The face is lacking in hair

The pigtailed macaque is a frugivorous species, but will also eat leaves, buds, shoots, insects, and will raid crops for fruits and grain. Group sizes for this species range from 5 to 22 individuals. The pigtailed macaque is a diurnal species. This is both an arboreal and terrestrial species, although it spends most of the time on the ground. The group splits up to forage during the day. This species lives in both primary and secondary growth forests and these are either highland or lowland forests

Distribution: The pigtailed macaque is found in the countries of Bangladesh, Bhutan, Burma, Cambodia, China, Indonesia, Laos, Malaysia, Thailand, and Vietnam.
http://members.tripod.com/uakari/macaca_nemestrina.html

Red-Shanked Douc langur (*Pygathrix nemaeus*)

Class:Mammalia Order PRIMATES Family: Cercopithecidae

The average body mass for an adult male douc langur is around 10.9 kilograms, and for the female it is around 8.2 kilograms. This species has a sacculated stomach to assist in the breakdown of cellulose. The molars and premolars have high cusps and the incisors are narrow. The hindlimbs are longer than the forelimbs on the douc langur

The douc langur is a folivorous species, but it also consumes fruit. This species prefers to eat immature leaves over more mature ones. The douc langur prefers to eat fruit that is unripe and also fruit from the fig tree (*Ficus*). This species does not drink water rather it derives water from the food it eats. This is an arboreal and diurnal species



The social system of the douc langur varies between a unimale and a multimale-multifemale system depending upon the location. Females have a higher tendency to groom males in multimale groups than in unimale groups

Distribution: The douc langur is found in the countries of Cambodia, Laos, Thailand, and Vietnam. This species lives in rainforests and gallery forests (A forest along a river or stream).

http://members.tripod.com/uakari/pygathrix_nemaeus.html

Black-Shanked Douc langur (*Pygathrix nemaeus nigripes*)

Class:Mammalia Order PRIMATES Family: Cercopithecidae

The legs are maroon from the knees to the ankle with the thighs, fingers and toes black. The body is grey with agouti hairs of black, white & grey. The arms are white from the elbows to the wrists & the upper arms are grey like the body.

Once thought to be rare with limited distributions, recent fieldwork has demonstrated that douc langur populations are quite widespread and found in a variety of habitats and that they display ecological and social flexibility. Diets Douc langur are dominated by tree leaves, petals and buds with secondary use of fruits and seeds.

Distribution: Douc langurs are found most frequently in primary evergreen forests of Vietnam and Laos.



http://la.znet.com/~cdk14568/donald/online_zoo/dclangur.htm

Shanked Douc langur (*Pygathrix cinereus*)

Class:Mammalia **Order** PRIMATES **Family:** Cercopithecidae

Douc Langurs of the genus *Pygathrix* are native to Southeast Asia. Up until only a few years ago, two distinct taxa were recognized, the red-shanked douc langur, which was named by Linnaeus in 1771, and the black-shanked douc langur which was described a century later. From August 1995 through January 1998, however, six male specimens of a new and distinctive *Pygathrix* were confiscated by Vietnamese wildlife authorities or donated by private individuals and placed at the EPRC of Cuc Phuong National Park.



The animals had evidently originated in the southeastern part of Vietnam's Central Highlands, where field primatologists had also identified wild populations of the same description in a region occupied by red- and black-shanked monkeys.

Wild populations of the three doucs are in serious trouble, reduced to small numbers by habitat loss and hunting. While Laos and Cambodia may have more sizeable populations of the red-shanked and black-shanked doucs, the newly-discovered *Pygathrix cinereus* is known only from Vietnam and is currently considered the most critically endangered member of this threatened genus.

http://www.primatecenter.org/ep_langurs.htm

Gabrielle Gibbon (*Hylobates gabrielle*)

Class:Mammalia **Order** PRIMATES

Family: Hylobatidae



Los Angeles Zoo, California, USA

Photographer: Alan Mootnick

Wild dog (*Cuon alpinus*)

Class:Mammalia **Order** CARNIVORA **Family:** Canidae



(Dhole, San Diego Zoo, Photo: Jim Scarff)

A fairly large, doglike canid, with rounded ears and a long, moderately bushy tail. Legs are rather short, pelage is evenly tawny or dark red with a slightly darker tail and lighter underparts. Head-and-body length: 90 cm (Soviet Union populations some 20% longer). Tail length: 40-45 cm. Shoulder height: 50 cm. Weight: 15 -20 kg; female 10- 13 kg.

Dholes live in packs which are an extended family unit of usually 5-12 animals with aggregations of up to 25 animals occasionally noted. Packs are territorial. The primary component of the diet is other vertebrates, particularly medium-sized ungulates. The dhole will also include berries and reptiles in its diet.

<http://www.canids.org/SPPACCTS/dhole.htm>

Sun Bear (*Helarctos malayanus*)

Class:Mammalia **Order** CARNIVORA **Family:** Ursidae

The sun bear is the smallest of the bears, with a body length of 48 to 60 inches. Local peoples refer to it as the



"dog bear." They can weigh between 60 and 145 pounds with the males being slightly larger. Sun bears have short, sleek black fur with a golden or white colored crescent shape on their chest and the same lighter color around their muzzle and eyes. The muzzle is short and the ears are small and very round. The paws of the sun bear are large with naked soles, possibly an adaptation for better tree climbing. The claws are long, curved and very pointed.

Sun bears are omnivorous, eating birds, small mammals, termites, the young tips of palm trees and the nests of wild bees. They have been known to cause crop damage particularly to oil palms.

Nothing is known about the sun bear's social organization in the wild. Cubs are reported to stay with their mothers until fully grown. Through observation of captive sun bears it is believed that cubs can be born throughout the year.

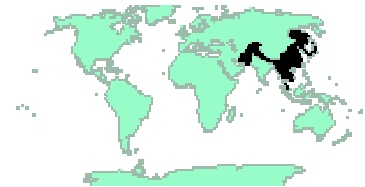
<http://www.scz.org/animals/b/sunbear.html>

Asiatic Black Bear (*Selenarctos thibetanus*)

Class:Mammalia **Order** CARNIVORA **Family:** Ursidae

Generally, they have been found to be 50-75 inches in length. The males usually weigh from 220-440 pounds, and the females from 110-275 pounds.

The Asiatic black bear has many similarities to its American cousin. Both are medium sized, and black. The ears of the Asiatic bear are large and seem inappropriately sized to the rest of its head and those of other bears. These bears have a white patch of fur on their chest, which is often shaped like a V, with some varying amount of white on



their chin as well. Occasionally, they can be found in a brown colour phase.

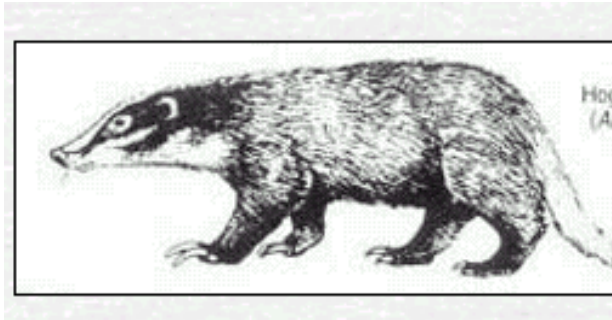
The diet of the Asiatic black bear is quite diverse. They eat carrion, bee's nests, insects, invertebrates, small vertebrates, and fruit.

<http://www.bears.org/animals/asiatic/>

Hog Badger (*Arctonyx collaris*)

Class:Mammalia Order CARNIVORA Family: Mustelidae

The hog badger is also known as the hog-nosed badger, the bear-pig and the sand badger. The claws on the front feet are considerably longer and white in color, and the tail is longer and white in color too. Head-and-body lengths range from 550mm to 700mm, with tail lengths of 120 to 170mm. Adults may weigh anything from 7 to 14kg.



Most accounts of the hog badger state that it is nocturnal, spending the day hidden away in a den [b3]. However in Manipur (India) local tribes report that the hog badger is active during the early part of the day and late at night. Litters of 2-4 young are usually born in the Spring (February - April). Young hog badgers, like young Eurasian badgers, are playful animals. They may reach adult size at around 7-8 months of age.

Distribution: The hog badger ranges over south-east Asia, occurring in Bangladesh, India, Bhutan, China, Vietnam, Laos, Thailand, Cambodia, and the Indonesian island of Sumatra. Within these countries, the species usually lives in forested areas, often in

hilly or mountainous areas.

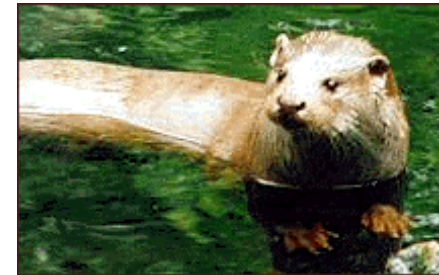
Text and images © Steve Jackson

<http://www.badgers.org.uk/badgerpages/hog-badger.html>

Common Otter (*Lutra lutra*)

Class:Mammalia Order CARNIVORA Family: Mustelidae

Otters are only usually active at night, especially around dawn and dusk. The most common sign of otters, is the spraint. Otters typically spraint in certain places, often quite visible. Sometimes they even make little mounds of mud or grass to spraint upon (sign heaps). This



is to mark their territory, not to provide a consolation prize to frustrated otter watchers!

Otters are found on rivers and lakes, around estuaries and along coastlines. A typical range for a male river otter might be 25km of river, a female's range less than half this. The otter is brown furred, with a lighter patch beneath its chin and throat. It has the classic long and sleek mustelid body with partially webs paws for swimming.

Freshwater otters generally take whatever fish are most readily available - sticklebacks, trout, roach, perch or eels. When there is a choice, otters will tend to concentrate on the ones easiest to catch, particularly eels. Any sizes will do though very tiny fish are probably ignored.

http://www.akyaka.org/dernek/otter/about_otter.htm

Yellow-Throated Marten (*Martes flavigula*)

Class:Mammalia Order CARNIVORA Family: Mustelidae

Large yellow and black marten of S China and Burma



The yellow-throated marten prefers to live singly. The front paws are ideally suited for tree climbing, and the senses of sight and hearing are more acute than that of smelling. This enables it to react quickly to the sound of moving animals. Its diet consists mainly squirrels and mice.

http://user.chollian.net/~zmncyy/eng_animal/eng_marten.html ...

Photo is Суматра, Ява и Калимантан



Large-Toothed Ferret Badger (*Melogale personata*)

Class:Mammalia Order CARNIVORA Family: Mustelidae

Unlike the other badgers, the ferret badgers are small, elongated animals with long, bushy tails. They do however have typical badger legs: short, with broad paws that are equipped with long, strong claws for digging. The pads on the feet have ridges running across them, and the toes are partially webbed; these features are believed to be adaptations for climbing.

Measurements: Head-and-body lengths range from 330 mm to 430 mm. The length of the tail ranges from 150 mm to 230 mm. Weights range from 1 - 3 kg in the case of the Burmese ferret badger.

Like the other badgers, ferret badgers are omnivorous. The massive teeth of the Burmese ferret badger (*Melogale personata*) are believed to be an adaptation for

crushing molluscs (snails) and hard-shelled insects.

Distribution: The northern part of the range of the Burmese ferret badger *M. personata* overlaps with the southern part of the previous species' range; it can be found across Assam, Nepal, Burma, Thailand, Laos, Vietnam and Cambodia.

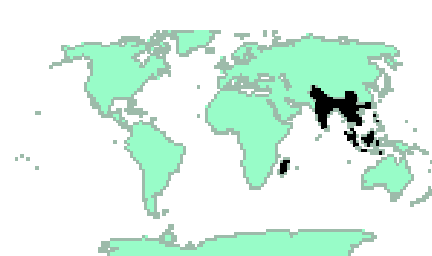


Above photo is *Melogale moschata*(*sinensys* Badger)

<http://www.geocities.com/RainForest/6332/2melogal.html>

Small Indian Civet (*Viverricula indica*)

Class:Mammalia Order CARNIVORA Family: Mustelidae



This animal usually measures less than a metre. This civet prefers inhabited areas where they can hunt rodents and other small animals, and obtain fruits and vegetables easily.

Distribution: Bangladesh, Bhutan, Cambodia, China, Hong Kong, India, Indonesia: *Bali, Jawa, Lesser Sunda Is, Sumatera*, Lao People's Democratic Republic, Madagascar (int), Malaysia: *Peninsular Malaysia*, Myanmar, Nepal, Pakistan, Singapore, Sri Lanka, Taiwan, Tanzania, United Republic of (int), Thailand, Viet Nam, Yemen

Spotted Linsang (*Prionodon pardicolor*)

Class:Mammalia **Order** CARNIVORA **Family:** Mustelidae



<http://www.washington.edu/burkemuseum/mammalogy/sichuan.html>

Head and body length is 350-450 mm and tail length is 304-420 mm. Medway (1978) listed the weight of *P. linsang* as 598-798 grams; on the average, *P. pardicolor* is slightly smaller. In *P. linsang* the ground color varies from whitish gray to brownish gray and becomes creamy on the underparts. The dark pattern consists of four or five broad, transverse black or dark brown bands across the back; there is one large stripe on each side of the neck. The sides of the body and legs are marked with dark spots, and the tail is banded. Some individuals of *P. pardicolor* have a ground color of orange buff, whereas others are pale brown. Black spots on the upper parts are arranged more or less in longitudinal rows, and the tail has 8-10 dark rings. Oriental linsangs dwell mainly in forests. They are nocturnal and generally arboreal but frequently come to the ground in search of food

http://www.press.jhu.edu/books/walkers_mammals_of_the_world/toc.html

Binturong (*Arctictis binturong*)

Class:Mammalia **Order** CARNIVORA **Family:** Viverridae

The binturong is an arboreal animal, meaning it lives in the trees. Binturongs have black fur and can weigh 30 to 40 pounds. From head to tail they are 46 to 73 inches long, but their body length is only 24 to 39 inches long. Its prehensile tail is very useful when climbing in the trees and hanging on branches. They can walk upside down hanging from branches with the use of their tail. The well-developed pads on the bottom of the paws help it run on the branches of trees. But when they are on the ground, binturongs walk flat-footed like bears.

Their diet consists of both plant and animal matter. They usually eat moving prey and The binturong has a keen sense of smell, and it has good vision and hearing. .

Distribution: The binturong can be found in the tropical and sub-tropical forests of Southeast Asia, Malaysia, Indonesia, Palaway Island, Burma, Indochina, Sumatra, Bangka, Java, Borneo, and possibly Nepal. The binturong is rare in its current range due to habitat destruction.

<http://www.k12.de.us/warner/binturon.htm>

Masked palm civet (*Paguma larvata*)

Class:Mammalia **Order** CARNIVORA

Family: Viverridae

The masked palm civet has short fur that ranges in color from brownish, orange, yellowish red or grey, with the



Masked Palm Civet (*Paguma larvata*)



black being on its ears and feet. There is a white stripe that runs along the top of its muzzle, from its nose to forehead. Next to this, on either side, is black stripes that run from the muzzle over the eyes and to the inner corners of the ears. Next to these stripes on either side are white stripes that extend from just underneath each eye to the inside of the ears. The cheeks are black, and the sides of the muzzle are entirely black. Its underparts are a lighter grey. Its whiskers are white. It has four anal glands from which it can squirt a foul secretion.

The masked palm civet eats mostly fruits, but will eat birds, rodents, insects and roots.

The masked palm civet is arboreal, solitary and nocturnal. They spend the day time sleeping in a den in a tree. Litter size is 1-4. They open their eyes at nine days old and reach adult size by three months. There doesn't seem to be a set breeding season, and they may have two litters a year.

Distribution: The masked palm civet has the largest range among the civet species. It ranges from the Himalayan mountains south to Indonesia. They live in the forests and brushlands.

<http://www.lioncrusher.com/animal.asp?animal=108>
John's Hopkins University: Walker's Mammals of the World Online

Palm civet (*Paradoxurus hermaphroditus*)

Class: Mammalia Order CARNIVORA

Family: Viverridae

The common palm civet has coarse, shaggy hair that is usually a greyish color, with black on its

Common Palm Civet (*Paradoxurus hermaphroditus*)



© N. Tomalin

feet, ears and muzzle. It has three rows of black markings on its body. The markings on its face resemble a raccoon's. Its tail does not have rings, unlike similar palm civet species. Their body is stocky and long. Its species name comes from the fact that both sexes have scent glands underneath their tail that resemble testicles. They can spray a noxious secretion from this gland.

The common palm civet is primarily frugivorous, but is omnivorous. It feeds mostly on berries, fleshy fruits, and the fruit of Ficus trees. It is picky about the fruit that it eats, picking only ripe fruit. It will also eat birds, rodents and insects as well as fruit.

The common palm civet is solitary, nocturnal, and arboreal. They spend the day asleep in a tree hollow. They are territorial. Young are born in tree hollows or in boulder crevices.

Distribution: The common palm civet is found in the temperate and tropical rainforests from Kashmir in the west to the Philippines, from China in the north to the Sunda islands.

<http://www.lioncrusher.com/animal.asp?animal=109>

Large civet (*Viverra zibetha*)

Class: Mammalia Order CARNIVORA Family: Viverridae

Physical Appearance

The Indian civet is generally a grizzled greyish brown, with white and black bars along their neck (usually two white stripes and three black stripes), stripes on the tail and a white muzzle. The hair on their back is longer. Their claws are retractable. They have hair in between their paw pads.

Indian Civet (*Viverra zibetha*)



© Mark Kostich

The Indian civet is mostly carnivorous. They will eat birds, frogs, snakes, small mammals, eggs, crabs, and fish. They will also eat fruit and roots.

The Indian civet is solitary and nocturnal. They spend most of their time on the ground, though they are agile climbers. They spend much of their time during the day sleeping in burrows in the ground that have been dug by other animals and abandoned. They are territorial and mark their territories with excretions from their anal glands. Their territory can range from 0.6-2 mi sq (1.7-5.4 Km sq).

Distribution: The Indian civet ranges from Indochina to China. It can be found in the countries of Nepal, Bangladesh, the Malay peninsula, and Vietnam.

<http://www.lioncrusher.com/animal.asp?animal=117>

Small Indian Civet (*Viverricula indica*)

Class: Mammalia **Order** CARNIVORA **Family:** Viverridae

The lesser Indian civet is generally a tawny to grey in color with dark black legs, ears, muzzle, and spots on its body arranged in rows. Their tail is striped.

This civet will feed on rats, squirrels, small birds, lizards, insects, grubs and fruit. If given the opportunity they will eat domestic poultry. They prefer to seek for food on the ground, though they can climb trees with agility.



Lesser Indian Civet (*Viverricula indica*)

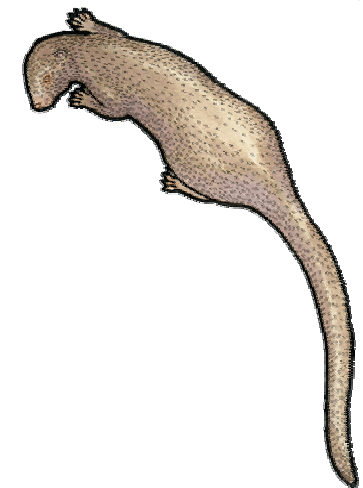
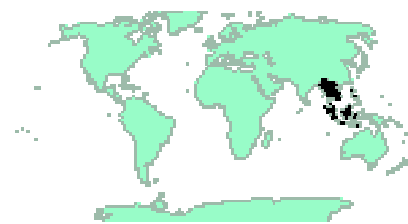
The lesser Indian civet is nocturnal. There is no apparent set breeding season. The litter

usually consists of 4-5 young. The mother excavates a burrow to give birth in. They prefer areas of thick grass or low shrub, and tend to avoid forested areas. They also tend to live near villages, sleeping in drains and outhouses.

Distribution: The lesser Indian civet lives in Myanmar, Thailand, India, Indonesia and China.

Small Asian Moongoose (*Herpestes javanicus*)

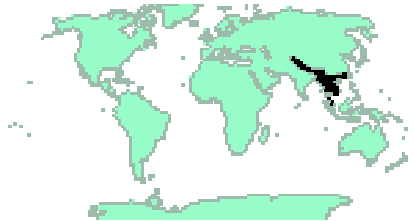
Class: Mammalia **Order** CARNIVORA **Family:** Herpestidae



Crab-eating Moongoose (*Herpestes urva*)

Class: Mammalia Order CARNIVORA Family: Herpestidae

Herpestes javanicus



underside of their face is white. They also have black ears with one large white spot in the middle of the back of each ear, which most cats have.

They have a varied diet, and may eat rodents, rabbits, musk deer, muntjac, birds, reptiles and fish. They have been known to kill domestic poultry.

These cats are nocturnal, and during the day they spend their time in dens that may be hollow trees, cavities under roots, or caves. The leopard cat is solitary, except during breeding season. There is no fixed breeding period in the southern part of their range; but in the colder northern parts they tend to breed around March or April. If the kittens are killed the mother can come into heat again and have another litter that year.



Leopard cat (*Felis bengalensis*)

Class: Mammalia Order CARNIVORA Family: Felidae

The leopard cat is approximately the size of a domestic house cat, but with longer legs. The ground color of this cat can range from a pale yellow, to a golden yellow, to a reddish or greyish yellow. They have many large, solid, black spots and blotches covering their entire body. The spots may form stripes on areas of the neck and back. Their under belly and



Distribution: The leopard cat lives in the forests to the plains areas of India, Pakistan, Bangladesh, Burma, Thailand, Vietnam, Philippines, Malaysia, Indonesia, and small populations in China.

<http://www.lioncrusher.com/animal.asp?animal=58>

Marbled cat (*Felis marmorata*)

Class: Mammalia Order CARNIVORA

Family: Felidae

A rare cat, the marbled cat resembles a long-tailed cat in size and build. Its beautiful, striking coat is pale brown, with irregular slightly darker brown blotches sharply outlined in dark brown or black. Its long cylindrical tail is full from rump to tip and



carries its body pattern.

http://ftp.sunet.se/pub/pictures/animals/Wild_Cats/

The marbled cat may be found in the forests of the Maylay peninsula, Sumatra, Borneo and some neighboring small islands, where it hunts by day, from trees, and seeks birds and eggs.

The **Marbled Cat** (*Felis marmorata*) is widely distributed cat of eastern India. The marbled cat, as its name implies, has a marbled coat pattern made up of dark blotches more or less lined with black. The face has the usual check stripes. The general body color varies from gray to earthy or yellowish-brown of varying intensity; white or tawny below. It is slightly larger than a domestic cat. The marbled cat is a forest animal, at home in trees, and feeds on small mammals and birds.

Asian Golden Cat (*Felis temmincki*)

Class: Mammalia Order CARNIVORA Family: Felidae

Asian golden cat is a medium-sized, well-proportioned cat with short round ears, about twice the size of a cat. It has a strikingly beautiful appearance, with a deep-golden coat fading to white on its undersides. In some subspecies, there is an absence of spotting, while in others faint brown spotting is evidenced. An occasional individual will be very dark brown, almost black. There is a distinctive grey patch behind each ear, while a white line bordered in black runs from each eye to the top of its head.

Asian golden cat may be found in the forests and rocky areas of Asia from the Himalayas



to the Maylay Peninsula, where it hunts by day, from the ground, and seeks game of all types up to the size of small deer.

<http://www.nhm.org/~pcannon/cats/temminck.html>

Cloude leopard (*Neofelis nebulosa*)

Class: Mammalia Order CARNIVORA Family: Felidae

The clouded leopard is the largest of the small to medium sized cats (20 to 30 kg), about the size of a small Labrador retriever. The clouded leopard is immediately recognizable by its distinctive coat patterning. The base color of the fur is a pale yellow to a rich brown. Large irregular-shaped blotches on its side give the cat its name. The neck and back are streaked with elongated dark brown or black spots. The head and legs are usually spotted. The tail is heavily furred and marked with broken black rings. Its eyes are yellow.

The clouded leopard is a carnivore feeding on deer, cattle, goats, wild pigs, reptiles, birds, and monkeys. It hunts by day or night, either by stalking its prey on the ground or by ambushing it from the trees.



IUCN

Clouded leopards are solitary except during the breeding season. Largely arboreal, clouded leopards are one of the best tree climbers; they use their long tail and broad paws for balance and grasp. Clouded leopards prefer the deep tropical forest, jungles, and swampy areas away from human settlements. (Defenders of Wildlife, 1997; Feline Conservation Center, 1997; Minnesota Zoo, 1997)

Distribution: In the southeastern part of the Asian continent, from Nepal eastward to Taiwan, including southern China, and southward to the island of Java, including Myanmar, Indochina, Malaysia, and the islands of Sumatra and Borneo.

[http://animaldiversity.ummz.umich.edu/accounts/neofelis/n._nebulosa\\$ narrative.html](http://animaldiversity.ummz.umich.edu/accounts/neofelis/n._nebulosa$ narrative.html)

Leopard (*Panthera pardus*)

Class: Mammalia Order CARNIVORA Family: Felidae

The leopard or panther is a large, graceful cat with a long, lithe build. Its coat is pale brown to yellowish-brown with dark brown spots in rosettes. Some individuals are very dark brown, almost black, effectively masking their spots and producing the famous black panther. The leopard has incredible jumping ability.



IUCN

The leopard may be found in all parts of Africa south of the Sahara, Asia east of the Indus and south of Mongolia, and Indonesia, where it hunts by night, by twilight, and by day in late afternoon and early morning, from the ground or from trees, often dropping silently on its prey, and seeks large or small game of almost any type.

A solid-colored leopard or "black panther" is often of a more aggressive nature than those with a spotted coat. This is because normal spotted mothers tend to dislike solid-color cubs, often driving them away prematurely. This ostracism produces mean-tempered, intolerant individuals, just as it does with humans. No satisfactory explanation has ever been given for this phenomenon.

<http://www.nhm.org/~pcannon/cats/leopard.html>

Lesser mouse deer (*Tragulus javanicus*)

Class: Mammalia Order ARTIODACTYLA Family: Tragulidae

Tragulus

javanicus , or lesser Malay mouse deer (1 to 2 kg), do not have antlers or horns. Females

are also smaller than the males. The cheekteeth of lesser mouse deer have a crescent pattern formed by the enamel ridges. Mouse deer have no upper incisors. The pelage of mouse deer is brown with an orange tint. The underside is white. There is also a series of white vertical markings on the neck. *T. javanicus* is the smallest artiodactyl, 18-22 inches long with a



tail length of 2 inches. The young look like miniature adults when born; however, the tusk-like incisors in the infant males are not well developed.

T. javanicus is a ruminant and has a three-chambered stomach (Lawlor, 1979). As ruminants, commonly herbivores and folivores, eating leaves, buds, shrubs, and fruits that have fallen from trees

T. javanicus are found in overgrown primary and secondary forests in southeast Asia. They often reside around rocks, hollow trees, and dense vegetation near water.

[http://animaldiversity.ummz.umich.edu/accounts/tragulus/t._javanicus\\$narrative.html](http://animaldiversity.ummz.umich.edu/accounts/tragulus/t._javanicus$narrative.html)

Sambar deer (*Cervus unicolor*)

Class: Mammalia Order ARTIODACTYLA Family: Cervidae

Sambar deer is a brown coat with orange spots from time to time, fur thick and straight. Social animal with bucks whose can gathered during the mating period (nov, dec in central India) 5 to 12 does. Then they return to an alone life. Nightly activity, it stays during the day in the thicket. Swim easily.



http://acro.harvard.edu/GEI/india_nature.html

Barking deer (*Muntiacus muntjak*)

Class: Mammalia Order ARTIODACTYLA Family: Cervidae

Size : 1 m length, 50 cm high

It carries litthe antler (15 cm) with only one branch and related to a broad and hairy pivot. At the time of the rut it pushes small cries close to a barking. Forester, recluse and diurnal. On the slopes of the Himalayas, they go up until more 2000m of altitude .



Distribution : Sri Lanka, India, north-eastern Pakistan, Nepal, Bhutan, Bangladesh, south of China, Malaysia, Sumatra, Borneo, Java, Bali, indonesian islands.

<http://cerfs.ifrance.com/cerfs/english/muntiacus-e.htm>

Truongson Muntjac (*Muntiacus truongsonensis*)

Class: Mammalia Order ARTIODACTYLA Family: Cervidae

The Truong Son muntjac was first recorded by scientists during a survey of forests in the Truong Son (formerly "Annamite") range of mountains in Vietnam in April 1997. It weighs approximately 15 kg (33 lb) and is found mostly in secondary wet evergreen forest, with ferns and leaf litter in the dense undergrowth, in higher ridges from 400 - 1000 m (1300 - 3300').

Detailed information about its biology is not yet available. Generally, it has been found that young muntjacs are born in dense jungle growth, where they remain hidden until they can move around with their mother. The diet of muntjac species includes grasses, low-growing leaves, and tender shoots, and both diurnal and nocturnal activities have

been reported.

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The diet of muntjac species includes grasses, low-growing leaves, and tender shoots.

<http://www.animalinfo.org/species/artiperi/munttruo.htm>

Giant Muntjac (*Megamuntiacus vuquangensis*)

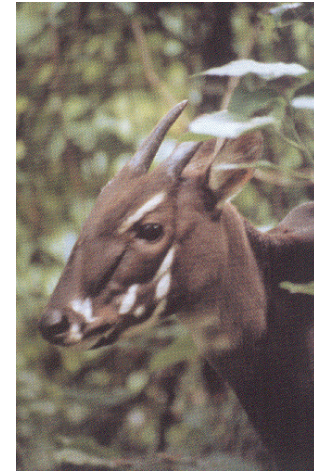
Class: Mammalia Order ARTIODACTYLA Family: Cervidae

The giant muntjac (*Megamuntiacus vuquangensis*) was discovered in 1994 in evergreen forests of the Annamite Mountains that border Laos (Lao People's Democratic Republic) and Vietnam. We describe its known distribution in Laos and provide the first detailed description of the species. Comparison of its skull and antlers with those of sympatric red muntjacs (*Muntiacus muntjak*) and other muntjacs support its designation as a distinct species. Morphological and genomic DNA data suggest that the giant muntjac belongs with other muntjacs in the genus *Muntiacus* and not in a genus of its own.

This is the first of the new mammal species discovered. First found in Vu Quang forest reserve, which is in Ha Tinh province of north central Vietnam. Specimens are also known from Nghe An province just to the north, and it is suspected from Thua Thien-Hue province and Dak Lak in the southern central highlands. Based on this information, we believe that *Pseudoryx nghetinhensis* has a wider distribution.

<http://coombs.anu.edu.au/~vern/species.html>

<http://coombs.anu.edu.au/~vern/species/schaller.html>

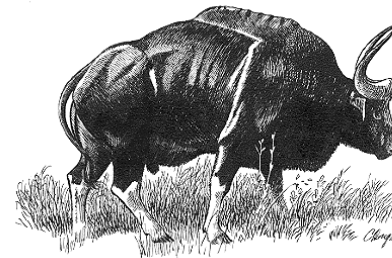


The giant muntjac is a deer, about the size of a large dog, that weighs 30 - 50 kg (66 - 110 lb). It is found mostly in evergreen and semi-evergreen forests, and it apparently prefers primary forests, although it has been noted in second-growth areas and degraded forests. It has been found at altitudes from 500 -1200 m (1600 - 3900'). Only single young have been observed with females, and adults are apparently solitary.

<http://www.animalinfo.org/species/artiperi/megavuqu.htm>

Gaur (*Bos gaurus*)

Class: Mammalia Order ARTIODACTYLA Family: Bovidae



Most people know that cows are a domesticated version of the wild cattle that ranged through the Old World thousands of years ago. Wild cattle still run in small herds in the hilly forests of India, Burma, and the Malay peninsula, and these are the gaurs. Each herd is led by a huge old bull, with the finest horns, a sleek, dark brown coat, and white “stockings.” One of this animal’s distinguishing features is the saddlelike-hump on their back.

Gaurs are huge animals; they can measure 2 m at the shoulder and can weigh 900 kg. They were once hunted by sportsmen in India as “big game” as was the American bison. Because of their size and strength, and since the Indian tiger is now almost extinct, they have few predators other than man.

<http://www.nature.ca/notebooks/english/gaur.htm>

Serow (*Capricornis sumatraensis*)

Class: Mammalia Order ARTIODACTYLA Family: Bovidae



Short bodied, long legged, goat antelope with large donkey-like ears and coarse, rather long body hairs. The shoulder height is about 1 meter. A strongly developed mane is present on neck and extends well along the middle of the back to the tail. Both sexes have horns; each one is rather short and thick with ringed corrugations at its base. In Thailand, serow typically inhabit steep limestone mountains, thickly clad cliffs and generally inaccessible forest. Because of their acute sense of smell, eyesight and hearing, combined with the habitat, serow are difficult to observe. Still found in localized mountain forest areas of Northern Thailand, but are rare with their sites rapidly declining from heavy poaching.

<http://www.war-thai.org/endangered.htm>

Javanese pangolin (*Manis javanica*)

Class: Mammalia Order PHOLIDOTA Family: Manidae



From: mkramer@wxs.nl (Martin Kramer)

The Pangolin is an unusual-looking mammal which has certain body hairs modified into a series of scale-like armour plates. Its strong claws and a very long tongue enable it to rip apart termite nests and lick up their inhabitants. It grows to a length of around 85 cm and is largely terrestrial, although it is also an excellent tree-climber. In Singapore, it is widely distributed in forest, scrubland and rural areas, but rarely seen. It is threatened mainly by habitat destruction, but is also hunted for human consumption.

<http://www.sci-ctr.edu.sg/ssc/imglib/vertebra/manis.html>

Chinese pangolin (*Manis pentadactyla*)

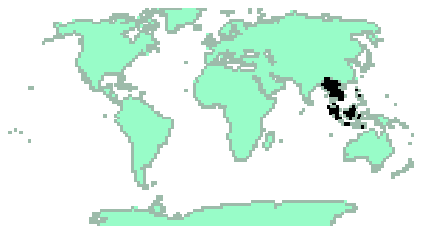
Class: Mammalia Order PHOLIDOTA Family: Manidae

The Chinese pangolin has been referred to as the scaly anteater because that is what it resembles. It measures around 60 cm from head to body with an 18 cm tail. Sexual dimorphism is present in this species. Chinese pangolins have a small pointed head and a narrow mouth. The nose is fleshy and has nostrils at the end.

Manis pentadactyla feed on insects, namely ants and termites. They use their claws to open up termite and ant mounds. Then they draw the prey into their mouths with their 25 cm long, sticky tongues.

Not only are they nocturnal animals, but they are extremely shy and slow moving creatures. They defend themselves by curling up into a ball, and they are also protected from predators by the hard scales that cover their bodies. *Manis pentadactyla* is a predominantly terrestrial species. It has, however, been observed in the jungle canopy up to 20 ft above the ground.

Chinese pangolins inhabit subtropical and deciduous forests. In central Nepal these areas are on rolling hills where there are numerous, large termite mounds. They use their strong, clawed forefeet to dig burrows up to 8 ft deep. This can be done in three to five minutes. Once the pangolin is inside, it blocks the entrance.



http://www.savci.upol.cz/gal/galerie_9.htm

Distribution: *Manis pentadactyla* , or the Chinese pangolin, ranges westward through

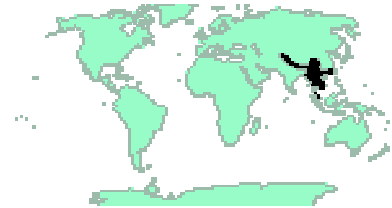
Nepal, Assam, and eastern Himalaya, Burma, and China. The Chinese pangolin has been reported in Ramechab, Pannauti, Soondarijal, Barabisse, and Baglung.

<http://animaldiversity.ummz.umich.edu/accounts/manis/>

Black and white flying squirrel (*Hylopetes alboniger*)

Class: Mammalia Order RODENTIA Family: Pteromyidae

A medium sized flying squirrel with creamy white underparts and a grayish or drab brown upperpart. These are typically mountain flying squirrels occurring in mixed forest especially where there are oak trees. Found only in the north of Thailand where they live in hollow trees during the day and forage for fruit and nuts at night.



<http://www.war-thai.org/endangered.htm>

Giant flying squirrel (*Petaurista petaurista*)

Class: Mammalia Order RODENTIA Family: Pteromyidae

The giant flying squirrel has a distinctive, thickly haired flying membrane that extends from its wrists to its hind legs and is further expanded by a skin fold between the tail root and the hind legs. This membrane is composed of sheets of muscles that can be tensed or relaxed at will, thus controlling the direction of glide. In addition, there is a large spur on the edge of this membrane that helps to support it.

Petaurista petaurista is characterized by its large eyes and mahogany-red coloring, though coloration varies with environment. Relative to other squirrels, this species is

very large; its head and body length average 398mm and its tail adds an additional 422mm. Five digits, all of which have curved and sharp claws, are found on the hind feet and four are found on the forefeet.

The giant flying squirrel's diet primarily consists of pine cones, tree buds, leaves, young branches, and, when in season, various fruits and nuts. In captivity, individuals have been maintained on raisins and nuts, but refused shrubs and other leafy substances. In addition to being good climbers, giant flying squirrels are excellent gliders; some were observed gliding for up to 75 meters. This is accomplished by jumping off an elevation, usually the topmost branches of a tree. While in flight, these squirrels are able to control the direction of the glide by tensing and relaxing their membrane muscles. At rest, they fold the flying membrane close into their bodies. These solitary animals are nocturnal and are most active and vocal during the evening hours. Their low, monotonous moan is believed to be a mating call of some kind. Although the regions where these squirrels live become quite cold during the winter season, *P. petaurista* does not hibernate, but they may migrate to areas where food is more abundant. Giant flying squirrels make their nests in the tree cavities of densely forested areas.



Photo: <http://people.zeelandnet.nl/mido/sheets/petauristauk.htm>

Distribution: *Petaurista petaurista* ranges from the eastern border regions of Afghanistan to Java, and from Kashmir, Taiwan, and southern China to Sri Lanka. Its greatest numbers are found in the forest regions of Pakistan.

<http://animaldiversity.ummz.umich.edu/accounts/petaurista/>

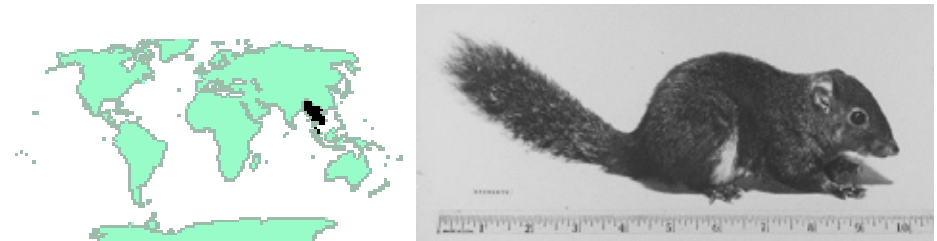
Yellow-Handed Tree Squirrel (*Callosciurus flavimanus*)

Class: Mammalia Order RODENTIA Family: Sciuridae



Red cheeked squirrel (*Dremomys rufigenis*)

Class: Mammalia Order RODENTIA Family: Sciuridae

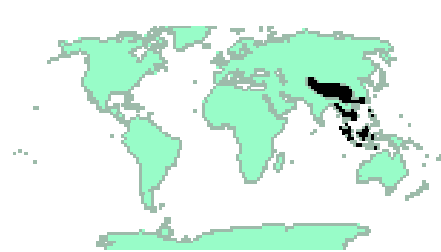


Head and body length is 165-242 mm and tail length is 126-78 mm. The weight of *D. rufigenis* is 210-70. Coloration is generally dull, without a conspicuous pattern. Some forms are olivaceous above with a slight brownish tone. The upper surface of the tail is almost black, but the tips of the hairs are gray, and the lower surface is bright brown along the median line and edged by almost black. The underparts of the body are white. There is a faint light spot behind the ear. The furry coat of this genus is fairly soft and full.

These squirrels are found at elevations from sea level to 3,400 meters but dwell mainly in montane forests. They seem to spend considerable time on the ground and in trees within 4.5 meters of the ground. The diet includes fruits, nuts, other plant material, and insects. http://www.press.jhu.edu/books/walkers_mammals_of_the_world/

Giant Squirrel (*Ratufa bicolor*)

Class: Mammalia Order RODENTIA Family: Sciuridae



http://www.scarysquirrel.org/current/blackskwerls/r_bicolor.jpg

Head and body length is 254-457 mm and the tail is about the same length or longer. The weight is usually 1.5-2 kg but sometimes as much as 3 kg. These large squirrels are very colorful mammals, and coloration varies widely. The underparts are buffy to white. Fading and the growth of new hair in well-defined areas often produce the effect of colored patches on the back, which are not true differences in pattern. The ears are short, round. The hand is very broad.

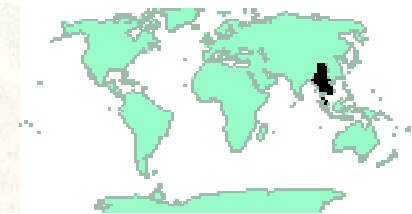
The diet consists of fruits, nuts, the bark of some trees, insects, and birds' eggs. These squirrels do not sit upright with the tail arched over the back while feeding; instead, they balance themselves with their hind feet on a branch so that their hands are free to manipulate the food. In this position the axis of the body is held at right angles to the support, with the head and forequarters on one side of the branch and the tail as a counterweight on the other side. The very short, broad thumb is important in helping to hold food.

Giant squirrels are solitary or associate in pairs, and often they are wary and keep well hidden in dense forest vegetation.

http://www.press.jhu.edu/books/walkers_mammals_of_the_world/rodentia.sciuridae.ratufa.html

Indochinese Ground Squirrel (*Menetes berdmorei*)

Class: Mammalia Order RODENTIA Family: Sciuridae



Head and body length is 177-210 mm, tail length is 140-77 mm, and weight is about 195 grams. The pelage is dense, soft, and full. Coloration is grayish brown on the back, grayish on the head, light gray on the sides, and whitish to buffy on the underparts. The side stripes, which extend from the back of the shoulders and the front of the thighs, are particularly conspicuous: the upper stripe is a faint black line; below this is a buff line, then a fairly distinct black line, and then a suggestion of a buffy stripe. The tail is relatively full and nearly the same color as the back, or slightly lighter. The head is sharply pointed. The incisor teeth are deep orange. Females have six mammae.

This squirrel occurs from sea level to elevations of about 1,225 meters. In some parts of its range it frequents rocks that are surrounded by thick shrubs. It may occur near cultivated areas, in open fields, or in forests. Although essentially a ground squirrel, it is occasionally observed climbing about in clumps of bamboo at short distances from the ground. It is plentiful along the edges of rice fields and in long grass, especially in the early evenings.

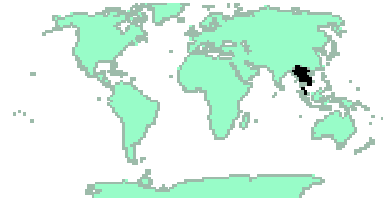
Distribution: The single species, *M. berdmorei*, is found from eastern Burma to southern Viet Nam and the northern part of the Malay Peninsula. It occurs in the Mergui Archipelago off the west coast of Tenasserim and peninsular Thailand, but its range

apparently does not extend as far south as mainland Malaysia.

http://www.press.jhu.edu/books/walkers_mammals_of_the_world

Striped tree Squirrel (*Tamiops rodolphei*)

Class: Mammalia Order RODENTIA Family: Sciuridae



Head and body length is 100-160 mm, tail length is 80-115 mm, and weight is 40-85 grams. The tail is usually narrower and shorter than the head and body. There are usually five dark stripes, alternating with light stripes, on the back and sides. The general dorsal background color is yellowish brown, and the underparts are white, pale brown, or bright red. The ears are usually tufted with white, and the tail is slender and rather thinly furred. Apparently, there are two molts per year, since the winter and summer coats are somewhat different in color. Females have six mammae.

This squirrels live in various kinds of forest, including jungle, coniferous growth, and low scrub, from sea level to about 1,525 meters. They are arboreal and live in holes in trees. They are active during the day, especially in the early morning. The diet includes fruits, nuts, seeds, and a substantial portion of insects.

One or two pairs reportedly are present in the fruit trees or coconut palms around each house in some villages in Thailand. There are two calls, a monotonously repeated birdlike chirp and a long descending trill of shrill chirps stated that a pregnant female with three embryos was taken in April.

http://www.press.jhu.edu/books/walkers_mammals_of_the_world

Brush Tailed Porcupine (*Atherurus macrourus*)

Class: Mammalia Order RODENTIA Family: Hystricidae



Photo: Askar Isabekov

Head and body length is 365-570 mm, tail length is 102-260 mm, and weight is 1.5-4.0. The pelage is almost entirely spiny, though the spines are softer on the head, legs, and underparts. The middorsal spines are the longest. Most of the spines are flattened and have a groove on their dorsal surface. The basal part of the tail is clothed like the back, the middle part is scaly, and the terminal part has a thick tuft of bristles. The general coloration of the upper parts is grayish brown to blackish brown, and the individual hairs have a whitish tip. The sides are paler than the back, and the underparts are nearly white. The tail tuft is whitish to creamy buff.

Atherurus has a relatively long body; short, stout limbs; and short, rounded ears. The partially webbed feet are armed with blunt, straight claws. The tail is about one-fourth to one-half as long as the head and body; it breaks easily and is often lost. Females have two pairs of lateral thoracic mammae.

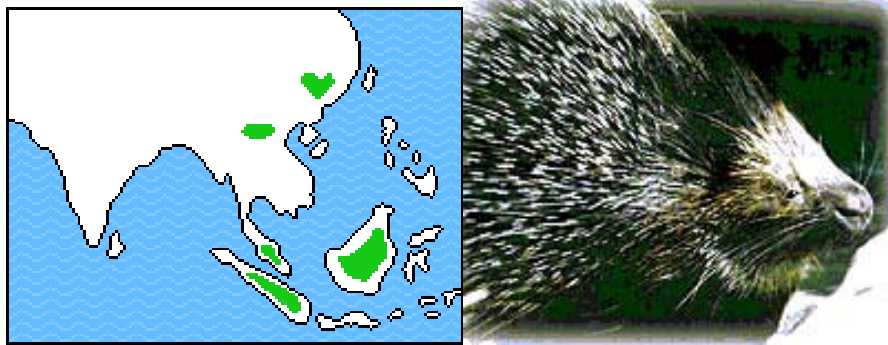
These porcupines live in forests at elevations of up to 3,000 meters. They are strictly nocturnal, sheltering by day in a hole among tree roots, a rocky crevice, a termite mound, a cave, or an eroded cavity along a stream bank. Evidently they do not usually dig their own burrows but do line the natal chamber with vegetation. They run swiftly and are basically terrestrial but are capable of climbing, can jump to a height of over 1 meter, and can swim. The diet consists mainly of green vegetation, bark, roots, tubers, and fruit and may sometimes include cultivated crops, insects, and carrion.

Group territories have been found to measure 0.18-5.00 ha. and to be regularly marked in certain spots with dung deposits. *A. macrourus* also may live and move about in small groups.

http://www.press.jhu.edu/books/walkers_mammals_of_the_world

Chinese Porcupine (*Hystrix hodgsoni*)

Class: Mammalia Order RODENTIA Family: Sciuridae



Terrestrial. Nocturnal. Chinese Porcupines live in small family groups in ground caves or rock crevices. They have long quills on the neck, nape and back. When threatened by predators like lions, tigers and leopards, the quills bristle rapidly and beat the ground with their hind feet to scare enemies away. When threatened further, they will defend themselves by giving a sideways or backward attack in which the quills are rammed into the predators.

Diet are fruit, bark, roots, leaves and succulent plants

http://www.lcsd.gov.hk/LEISURE/LP/hkzbg/english/animals/animals_21.html

Hare (*Lepus nigricollis*)

Class: Mammalia Order LAGOMORPHA Family: Leporidae



Hare is a mammal of open fields and plains. It prefers busy tracts alternating with cultivation. It is usually nocturnal in habit. By day, it lies up in a scooped out hollow or 'form' made in the patch of grass. In this respect, it differs from the true rabbit which lives in a burrow and does not occur in India. This animal is a great menace to cultivation. It likes to feed on vegetable crops like carrot, radish, peas, cabbage etc. Reduced by snaring and shooting, the greatest cause for the decline in its population has been the destruction of plant cover.

http://www.haryana-online.com/Fauna/indian_hare.htm

2 Species List on animals in Kon Plong

Fauna list in Kon Plong District Kon Tum Province Vietnam

(Living now is highly expected)

(Studied by FIPI/JOFCA study team 2001)

List of Mammals

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	I. Insectivores	INSECTIVORA				
	1. Shrew	Soricidae				
	House shrew	<i>Suncus murinus</i>	1			
	II. Treeshrews	SCANDENTIA				
	2. Treeshrews	Tupaiaidae				
	Common tree shrew	<i>Tupaia glis</i>	1236		+++	Sp
	III. Flying lemurs	DERMOPTERA				
	3. Flying lemurs	Cynocephalidae				
	Malayan Flying Lemur	<i>Cynocephalus variegatus</i>	2	E, IB	+	I
	IV. Bats	CHIROPTERA				
	4. Old World	Pteropodidae				
1	Short nosed fruit Bat	<i>Cynopterus brachyotis</i>	1456		++	Sp

No.	English name	Scientific name	Distribution	Endangered	Density	Note
2	Tailless fruit Bat	<i>Megaerops ecaudatus</i>	5		+	O
	5. Horseshoe	Rhinolophidae				
3	Great Himalayan L.N	<i>Hipposideros armiger</i>			+++	Sp
	6. Evening	Vespertilionidae				
4	Whiskered Bat	<i>Myotis siligorensis</i>	1		+	Sp
5	Flat-headed Bat	<i>Tylonycteris pachypus</i>	1		+	Sp
	V. Primates	PRIMATES				
	7. Loris	Loricidae				
6	Pygmy slow loris	<i>Nycticebus pygmaeus</i>	1234	E	+	Sp
	8. Old-world	Cercopithecidae				
7	Old world monkey	<i>Macaca arctoides</i>	123456	R, IIB	++	Sp
8	Crab eating macaque	<i>Macaca fascicularis</i>	12		++	Sp
9	Rhesus macaque	<i>Macaca mulatta</i>	6	IIB	++	O
10	Pig-tailed macaque	<i>Macaca nemestrina</i>	2	V, IIB	+	
11	Silvered leaf monkey	<i>Presbytis cristata</i>	2	V	+	I
12	Red-Shanked Douc langur	<i>Pygathrix nemaus</i>	124	E, IB	+	I

No.	English name	Scientific name	Distribution	Endangered	Density	Note
13	Black-Shanked Douc langur	<i>Pygathrix nemaeus nigripes</i>	124	E, IB	+	I
14	Shanked Douc langur	<i>Pygathrix cinereus</i>	3			Sp
	9. Gibbons	Hylobatidae				
15	Gabrielle Gibbon	<i>Hylobates gabrielle</i>	12	E, IB	++	O
	VI. Canivores	CARNIVORA				
	10. Dog and Foxes	Canidae				
16	Wild dog	<i>Cuon alpinus</i>	136	E, IB	+	I
	11. Bears	Ursidae				
17	Sun Bear	<i>Helarctos malayanus</i>	126	E, IIB	+	Sp
18	Asiatic Black Bear	<i>Selenarctos thibetanus</i>	23456	E, IIB	+	Sp
	12. Weasels,	Mustelidae				
19	Hog Badger	<i>Arctonyx collaris</i>	134		++	Sp
20	Common Otter	<i>Lutra lutra</i>	6	T,	+	I
21	Yellow-Throated Marten	<i>Martes flavigula</i>	26	IB	+	I
22	Large-Toothed Ferret Badger	<i>Melogale personata</i>	16		+	Sp
23	Small Indian Civet	<i>Viverricula indica</i>	26		++	Sp

No.	English name	Scientific name	Distribution	Endangered	Density	Note
24	Spotted Linsang	<i>Prionodon pardicolor</i>	126	IB	+	Sp
	13. Civets	Viverridae				
25	Binturong	<i>Arctictis binturong</i>	2346	R	++	Sp
26	Masked palm civet	<i>Paguma larvata</i>	12345		++	Sp
27	Palm civet	<i>Paradoxurus hermaphroditus</i>	123456		+++	Sp
28	Large civet	<i>Viverra zibetha</i>	1246		+	Sp
29	Small Indian Civet	<i>Viverricula indica</i>	7			Ea
	14. Mongooses	Herpestidae				
30	Small Asian Moongoose	<i>Herpestes javanicus</i>	14			Sp
31	Crab-eating Moongoose	<i>Herpestes urva</i>	7			Ea
	15. Cats	Felidae				
32	Leopard cat	<i>Felis bengalensis</i>	1246		++	Sp
33	Marbled cat	<i>Felis marmorata</i>	236	E	+	Sp
34	Asian Golden Cat	<i>Felis temmincki</i>	36	E, IB		I
35	Clouded leopard	<i>Neofelis nebulosa</i>	1234	V, IB	+	I
36	Leopard	<i>Panthera pardus</i>	14	E, IB	+	I
37	Tiger	<i>Panthera tigris</i>	236	E, IB	+	I

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	VII. Elephants	PROBOSCIDE				
	16. Elephants	Elephantidae				
38	Asian elephant	<i>Elephas maximus</i>	?	E, IB		I
	VIII. Even-Toed Ungulates	ARTIODACTYLA				
	17. Pigs	Suidae				
39	Wild boar	<i>Sus scrofa</i>	123456		+++	Sp
	18. Chevrotains	Tragulidae				
40	Lesser mouse deer	<i>Tragulus javanicus</i>	236	R	+	Sp
	19. Deer	Cervidae				
41	Sambar deer	<i>Cervus unicolor</i>	1235		+	Sp
42	Barking deer	<i>Muntiacus muntjak</i>	123456		+++	Sp
43	Truongson Muntjac	<i>Muntiacus truongsonensis</i>	356	E, IB	++	Sp
44	Giant Muntjac	<i>Megamuntiacus vuquangensis</i>	6	E, IB	+	?
	20. Cattle,	Bovidae				
45	Gaur	<i>Bos gaurus</i>	?	E, IB		I
46	Serow	<i>Capricornis sumatraensis</i>	12346	V, IIB		Sp
	IX. Pangolins	PHOLIDOTA				
	21. Pangolins	Manidae				

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	Javanese pangolin	<i>Manis javanica</i>	26		+	I
	Chinese pangolin	<i>Manis pentadactyla</i>	356	V	+	I
	X. Rodents	RODENTIA				
	22. Flying squirrel	Pteromyidae				
47	Black and white flying squirrel	<i>Hylopetes alboniger</i>	2	R	+	Sp
48	Giant flying squirrel	<i>Petaurista petaurista</i>	24	R, IB	++	Sp
	23. Non-flying squirrel	Sciuridae				
49	Yellow-Handed Tree Squirrel	<i>Callosciurus flavimanus</i>	1246		++	O
50	Red cheeked squirrel	<i>Dremomys rufigenis</i>	246		+	O
51	Giant Squirrel	<i>Ratufa bicolor</i>	6		+	O
52	Indochinese Ground Squirrel	<i>Menetes berdmorei</i>	7			Ea
53	Striped tree Squirrel	<i>Tamiops rodolpheii</i>	1345		++	Sp
	24. Bamboo rats	Rhizomyidae				
54	Hoary bamboo rat	<i>Rhizomys pruinosus</i>	126		+	Sp

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	25. Mice, Rats, etc.	Muridae				
55	Large bandicoot rat	<i>Bandicota indica</i>	6		+	O
56	House mouse	<i>Mus musculus</i>	14		++	O
57	Root rat	<i>Rattus flavipectus</i>	1234		++	O
58	Root rat	<i>Rattus fulvescens</i>	1		+++	Sp
59	Sladen's rat	<i>Rattus koratensis</i>	456		++	Sp
	26. Old-World Porcupines	Hystriidae				
60	Brush Tailed Porcupine	<i>Atherurus macrourus</i>	6		+	I
61	Chinese Porcupine	<i>Hystrix hodgsoni</i>	12346		++	Sp
	XI. Lagomorphs	LAGOMORPHA				
	27. Rabbits	Leporidae				
62	Hare	<i>Lepus nigricollis</i>	1		+	I

List of Birds

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	I.	PODICIPEDIFORMES				
	1. Grebes	Podicipedidae				

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	Little Grebe	<i>Tachybaptus ruficollis</i>	1		+	O
	II.	CICONIIFORMES				
	2. Herons, Egrets, Bitterns	Ardeidae				
		<i>Bubulcus ibis</i>	124		++	O
	Great Egret	<i>Egretta alba</i>	14		++	O
	Little Egret	<i>E. garzetta</i>	7			Ea
	Chinese Pond Heron	<i>Ardeola bacchus</i>	1246		++	O
	Little Heron	<i>Butorides striatus</i>	24		+	O
	Cinnamon Bittern	<i>Ixobrychus cinnamomeus</i>	1245		++	O
	III.	ANSERIFORMES				
	3. Geese, Ducks	Anatidae				
	Indian Whistling-Duck	<i>Dendrocygna javanica</i>	4		+	O
	IV.	FALCONIFORMES				
	4. Kites, Hawks, Eagles	Accipitridae				
1	Black Baza	<i>Aviceda leuphotes</i>	4		+	O
2	Crested Serpent Eagle	<i>Spilornis cheela</i>	46		+	O
3	Grey-faced Buzzard	<i>Butastur indicus</i>	7			Ea
	Black Eagle	<i>Ictinaetus malayensis</i>	7			Ea
4	Changeable Hawk Eagle	<i>Spizaetus cirrhatus</i>	7			Ea

No.	English name	Scientific name	Distribution	Endangered	Density	Notes
5	Asian Crested Goshawk	<i>Accipiter trivirgatus</i>	46		+	O
6	Besra	<i>A. virgatus</i>	7			Ea
7	Shikra	<i>A. badius</i>	1		+	O
	5. Falcons	Falconidae				
8	Collared Falconet	<i>Microhierax caerulescens</i>	14		+	O
9	Common Kestrel	<i>Falco tinnunculus</i>	124		++	O
	V.	GALLIFORMES				
	6. Quail, Partridges, Pheasants	Phasianidae				
	Chinese Francolin	<i>Francolinus pintadeanus</i>	12346		++	O
	Rufous-throated Partridge	<i>Arborophila rufogularis</i>	7			Ea
	Brown-breasted Hill Partridge	<i>A. brunneopectus</i>	46		+	Sp
	Red Jungle-fowl	<i>Gallus gallus</i>	123456		+++	Sp
	Silver Pheasant	<i>Lophura nychthemera</i>	1246	T	+	Sp
	Siamese Fireback Pheasant	<i>L. diardi</i>	1246	T, IB	+	O
	Burmese Peacock-Pheasant	<i>Poluplectron germaini</i>	26	T, IB	+	O
	Green Peafowl	<i>Pavo muticus</i>	246	R, IB	+	Sp
	Crested Argus	<i>Rheinartia ocellata</i>	2346	T, IB		Sp
	Blue-breasted Quail	<i>Coturnix chinensis</i>	46		++	O
	VI.	GRUIFORMES				

No.	English name	Scientific name	Distribution	Endangered	Density	Notes
	7. Buttonquail	Turnicidae				
10	Barred buttonquail	<i>Turnix suscitator</i>	46		+	O
	8. Rails, Crakes, Coot	Rallidae				
	Common Gallinule	<i>Gallinule chloropus</i>	14		+	O
	White-breasted Water Hen	<i>Amaurornis phoenicurus</i>	1246		++	O
	VII.	CHARADRIIFORMES				
	9. Plovers	Charadriidae				
	Red Wattled	<i>Vanellus indicus</i>	124		++	O
	River Lapwing	<i>V. duvaucelii</i>	7			Ea
	10. Curlews, Godwits, Snipe	Scolopacidae				
	Pintail Spine	<i>Gallinago stenura</i>	7			Ea
	VIII.	COLUMBIFORMES				
	11. Pigeons, Doves	Columbidae				
	Eastern Turtle Dove	<i>Streptopelia orientalis</i>	46		++	Sp
	Red-collared Dove	<i>S. tranquebarica</i>	26		++	O
	Spotted-necked Dove	<i>S. chinensis</i>	123456		+++	Sp
	Bar-tailed Cuckoo Dove	<i>Macropygia unchall</i>	4		+	Sp
	Emerald Dove	<i>Chalcophaps indica</i>	46		+	O
	Thick-billed Green Pigeon	<i>Treron curvirostra</i>	246		+++	Sp
	Green Imperial Pigeon	<i>Ducula aenea</i>	46		+	Sp

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	Mountain Imperial Pigeon	<i>D. badia</i>	246		++	O
	IX.	PSITTACIFORMES				
	12. Parrots	Psitidae				
11	Vernal Hanginy Parrot	<i>Loriculus vernalis</i>	1		+	O
12	Slaty-headed Parakeet	<i>Psittacula himalayana</i>	1246		+++	O
13	Red-breasted Parakeet	<i>P. alexandri</i>	234		++	Sp
	X.	CUCULIFORMES				
	13. Cuckoos	Cuculidae				
	Red-winged Crested Cuckoo	<i>Clamator coromandus</i>	146		+	O
	Large Hawk Cuckoo	<i>Cuculus sparverioides</i>	3		+	O
	Short-winged Cuckoo	<i>C. micropterus</i>	123456		++	O
	Plaintive Cuckoo	<i>Cacomantis merulinus</i>	136		++	O
	Drongo-Cuckoo	<i>Surniculus lugubris</i>	36		+	O
	Asia Koel	<i>Eudynamys scolopacea</i>	126		++	O
	Green-billed Malkoha	<i>Phaenicophaeus tristis</i>	7			Ea
	Greater Green-billed Malcoha	<i>Rhopodytes tristis</i>	12346		++	Sp
	Common Crow-Pheasant	<i>Centropus sinensis</i>	12345		+++	Sp
	Lesser Coucal	<i>C. bengalensis</i>	146		++	Sp
	XI.	STRIGIFORMES				
	14. Barn Owls	Tytonidae				

No.	English name	Scientific name	Distribution	Endangered	Density	Note
	Barn Owl	<i>Tyto alba</i>	3		+	O
	15. Owls	Strigidae				
14	Oriental Scpos Owl	<i>Otus sunia</i>	146		++	O
15	Spotted Scpos Owl	<i>O. spilocephalus</i>	124		++	O
16	Collared Owlet	<i>Glaucidium brodiei</i>	7			Ea
17	Asian Barred Owlet	<i>G. cuculoides</i>	7			Ea
18	Brown Wood Owl	<i>Strix leptogrammica</i>	7			Ea
19	Brown Hawk Owl	<i>Ninox scutulata</i>	145		++	O
	XII.	CAPRIMULGIFORMES				
	16. Nightjar	Caprimulgidae				
	Long-tailed Nightjar	<i>Caprimulgus macrurus</i>	24		+	O
	Grey Nightjar	<i>C. indicus</i>	7			Ea
	XIII.	APODIFORMES				
	17. Swifts	Apididae				
	Siver-backed Needle Tail	<i>Hirundapus caudacuta</i>			+	O
	XIV.	TROGONIFORMES				
	18. Trogons	Trogonidae				
	Red-headed Tragon	<i>Harpactes erythrocephalus</i>	26		+	O
	XV.	CORACIFORMES				
	19. Kingfishers	Alcedinidae				
	Common Kingfisher	<i>Alcedo atthis</i>	7			Ea

No.	English name	Scientific name	Distribution	Endangered	Density	Notes
	Greater Pied Kingfisher	<i>Magaceryle lugubris</i>	6	T	+	O
	White-throated Kingfisher	<i>Halcyon smyrnensis</i>	126		++	O
	20. Bee-eaters	Meropidae				
	Chestnut-headed Bee Eater	<i>Merops viridis</i>	1246		++	O
	21. Rollers	Coraciidae				
	Indian Roller	<i>Coracias benghalensis</i>	146		++	O
20	Dollarbird	<i>Eurystomus orientalis</i>	46		++	O
	22. Hoopoe	Upupidae				
	Hoopoe	<i>Upupa epops</i>	123		++	O
	23. Hornbills	Bucerotidae				
	Wreathed Hornbill	<i>Aceros undulatus</i>	246	T	+	Sp
	Indian Pied Hornbill	<i>Anthracoceros albirostris</i>	46		+	O
	Brown Hornbill	<i>Anorrhinus tickelli</i>	7			Ea
	Great Indian Hornbill	<i>Buceros bicornis</i>	26	T	+	I
	XVI.	PICIFORMES				
	24. Barbets	Capitonidae				
	Red-vented Barbet	<i>Megalaima lagrandieri</i>	246		++	Sp
	Green-eared Barbet	<i>M. franklinii</i>	7			Ea
	Green-eared Barbet	<i>M. faiostricta</i>	26		++	O
	25. Woodpeckers	Picidae				
	Bay Woodpecker	<i>Blythipicus pyrrhotis</i>	7			Ea
21	Rufous Woodpecker	<i>Celeus brachyurus</i>	46		+	O

No.	English name	Scientific name	Distribution	Endangered	Density	Notes
22	Stripe-breasted Woodpecker	<i>Dendrocopos atratus</i>	7			Ea
23	Speckled Piculet	<i>Picummus innominatus</i>	7			Ea
24	Grey-capped Woodpecker	<i>Picoides canicapillus</i>	24		++	O
25	Red-collared Woodpecker	<i>P. rabieri</i>	4	T	+	O
26	Lesser Yellownape	<i>Picus flavinucha</i>	2		+	O
27	White-browed Piculet	<i>Sasia ochracea</i>	7			Ea
	XVII.	PASSERIFORMES				
	26. Broadbills	Eurylaimidae				
28	Silver-breasted Broadbill	<i>Serilophus lunatus</i>	7			Ea
29	Long-tailed Broadbill	<i>Psarisomus dalhousiae</i>	34		++	
	27. Pittas	Pittidae				
30	Blue-backed Pitta	<i>Pitta soror</i>	46		+	O
31	Rusty-naped Pitta	<i>P. oatesi</i>	7			Ea
	28. Larks	Alaudidae				
32	Eastern Singing Busk Lark	<i>Mirafra javanica</i>	14		++	O
	29. Swallows	Hirundinidae				
33	Swallow	<i>Hirundo rustica</i>	1		++	O
34	Red-rumped Swallow	<i>H. daurica</i>	146		++	O
35	Asian House Martin	<i>Delichon dasypus</i>	7			Ea
	30. Wagtails, Pipits	Motacillidae				
36	Grey Wagtail	<i>Motacilla cinerea</i>	14		+	O
37	Yellow Wagtail	<i>M. flava</i>	136		++	O
38	White Wagtail	<i>M. alba</i>	124		++	O

No.	English name	Scientific name	Distribution	Ende ngere d	Dens ity	Not e
39	Olive-backed Pipit	<i>Anthus hodgsoni</i>	12		++	O
	31. Cuckoo-shrikes, Minivets	Campephagidae				
40	Dark-grey Cuckoo Shrike	<i>Coracina melaschistos</i>	23		+	O
41	Large Cuckoo Shrike	<i>C. macei</i>	16		+	O
42	Bar-winged Flycatcher Shrike	<i>Hemipus picatus</i>	12346		++	O
43	Scarlet Minivet	<i>Pericrocotus flammeus</i>	346		+++	O
44	Grey-chinned Minivet	<i>P. solaris</i>	7			Ea
45	Long-tailed Minivet	<i>P. ethologus</i>	7			Ea
	32. Bulbuls	Pycnonotidae				
46	Black-crested Bulbul	<i>Pycnonotus melanicterus</i>	2			O
47	Red-whiskered Bulbul	<i>P. jocosus</i>	12345		+++	Sp
48	Red-venter Bulbul	<i>P. aurigaster</i>	46		++	O
49	Flavescent Bulbul	<i>P. flavescens</i>	7			Ea
50	Olivaceous Bearded Bulbul	<i>Criniger pallidus</i>	2346		+++	O
51	Black Bulbul	<i>Hypsipetes leucocephalus</i>	3		+	O
52	Mountain Bulbul	<i>H. macclllandii</i>	7			Ea
53	Yellow Bravet	<i>H. propinquus</i>	12		++	O
54	Ashy Bulbul	<i>H. flavalus</i>	6			O
	33. Leafbirds, Ioras	Irenidae				
55	Common Iora	<i>Aegithina tiphia</i>	16		++	O
56	Great Iora	<i>A. lafresnayei</i>	23		+	O
57	Golden-fronted Leafbird	<i>Chloropsis aurifrons</i>	26		++	O
58	Blue-winged Leafbird	<i>C. cochinchinensis</i>	24		++	O

No.	English name	Scientific name	Distribution	Ende ngere d	Dens ity	Not e
59	Orange-bellied Leafbird	<i>C. hardwickii</i>	7			Ea
60	Blue-backed Fairy-bluebird	<i>Irena puella</i>	236		+	O
	34. Shrikes	Laniidae				
61	Burmese Shrike	<i>Lanius colluriooides</i>	126		++	O
62	Grey-backed Shrike	<i>L. tephronotus</i>	7			Ea
63	Black-headed Shrike	<i>L. schach</i>	1345		++	O
	35. Thrushes	Turnidae				
64	Lesser Shortwing	<i>Brachypteryx leucophrys</i>	7			Ea
65	Magpie Robin	<i>Copsychus saularis</i>	12356		+++	O
66	White-rumped Shama	<i>C. malabaricus</i>	146		++	O
67	Plumbeous Redstart	<i>Phoenicurus fuliginosus</i>	7			Ea
68	Slaty-backed Forktail	<i>Enricurus schistaceus</i>	7			Ea
69	White-crowned Forktail	<i>E. leschenaulti</i>	7			Ea
70	Common Stonechat	<i>Saxicola torquata</i>	23		+	O
71	Blue Rock Thrush	<i>Monticola solitarius</i>	7			Ea
72	Blackbird	<i>Turdus merula</i>	16		++	O
	36. Babblers	Timaliidae				
73	Spotted Babbler	<i>Pellorneum ruficeps</i>	13		+	O
74	Spot-throated Babbler	<i>P. albiventris</i>	7			Ea
75	Large Scimitar Babbler	<i>Pomatorhinus hypoleucos</i>	7			Ea
76	Coral-billed Scimitar Babbler	<i>P. ferruginosus</i>	7			Ea
77	Danjou's Babbler	<i>Jabouilleia danjoui</i>	4		+	O

No.	English name	Scientific name	Distribution	Endemism	Density	Notes
78	Streaked Wren Babbler	<i>Napothera brevicaudata</i>	7			Ea
79	Eyebrown Wren Babbler	<i>N. epilepidota</i>	7			Ea
80	Pygmy Wren Babbler	<i>Pnoepyga pusilla</i>	7			Ea
81	Red-headed Tree Babbler	<i>Stachyris ruficeps</i>	14		++	O
82	Golden Babbler	<i>S. chrysaea</i>	7			Ea
83	Grey-throated Babbler	<i>S. nigriceps</i>	7			Ea
84	White-crested Laughing Thrush	<i>Garrulax leucolophus</i>	123456		++	O
85	Lesser Necklaced Laughing Thrush	<i>G. milleti</i>	4	R	+	O
86	Black-throated Laughing Thrush	<i>G. chinensis</i>	1346		++	O
87	White-cheeked Laughing Thrush	<i>G. vassali</i>	7	T		Ea
88	Golden-winged Laughing Thrush	<i>G. ngoclinhensis</i>	7			Ea
89	Silver-eared Mesia	<i>Leiothrix argentea</i>	3		++	O
90	White-browed Shrike Babbler	<i>Pteruthius flaviscapris</i>	7			Ea
91	Chestnut-fronted Shrike Babbler	<i>P. aenobarbus</i>	7			Ea
92	Blue-winged Minla	<i>Minla cyanouroptera</i>	7			Ea
93	Red-tailed Minla	<i>M. ignotincta</i>	7			Ea
94	Rufous-winged Fulvetta	<i>Alcippe castaneiceps</i>	7			Ea
95	Mountain Fulvetta	<i>A. peracensis</i>	7			Ea
96	Rufous-backed Sibia	<i>Heterophasia annectans</i>	7			Ea

No.	English name	Scientific name	Distribution	Endemism	Density	Notes
97	Black-chinned Yuhina	<i>Yuhina nigrimenta</i>	7			Ea
98	White-bellied Yuhina	<i>Y. zantholeuca</i>	7			Ea
99	Black-throated Parrotbill	<i>Paradoxornis nipalensis</i>	7			Ea
	37. Old World Warblers	Sylviidae				
100	Grey-bellied Tesia	<i>Tesia cyaniventer</i>	7			Ea
101	Asian Stubtail	<i>Urosphena squameiceps</i>	7			Ea
102	Zitting Cisticola	<i>Cisticola juncidis</i>	146		++	O
103	Long-tailed Tailor Bird	<i>Orthotomus sutorius</i>	1246		+++	O
104	Mountain Tailorbird	<i>O. cucullatus</i>	7			Ea
105	Hill Prinia	<i>Prinia atrogularis</i>	7			Ea
106	Dusky Warbler	<i>Phylloscopus fuscatus</i>	14			O
107	Two-barred Greenish Warbler	<i>P. plumbeitarsus</i>	7			Ea
108	White-spectacled Warbler	<i>P. davisoni</i>	7			Ea
109	Yellow-browed Warbler	<i>P. inornatus</i>	7			Ea
110	Grey-cheeked Warbler	<i>Seicercus poliogenys</i>	7			Ea
111	Chestnut-crowned Warbler	<i>S. castaneiceps</i>	7			Ea
112	Rufous-faced Warbler	<i>Abroscopus albogularis</i>	7			Ea
	38. Old World flycatchers	Muscicapidae				
113	Red-throated Flycatcher	<i>Ficedula parva</i>	7			Ea

No.	English name	Scientific name	Distribution	Endemism	Density	Notes
114	White-gorgeted Flycatcher	<i>F. monileger</i>	7			Ea
115	Snowy-browed Flycatcher	<i>F. hyperythra</i>	7			Ea
116	Blue-throated Flycatcher	<i>Niltava rubeculoides</i>	7			Ea
117	Large Niltava	<i>N. grandis</i>	7			Ea
118	Small Niltava	<i>N. macgrigoriae</i>	7			Ea
119	Grey-headed Canary Flycatcher	<i>Culicicapa ceylonensis</i>	7			Ea
120	Indian Verditer Flycatcher	<i>Muscicapa thalassina</i>	46		+	O
	39. Monarchs, Fantails	Monarchidae				
121	White-throated Fantail	<i>Rhipidura albicillis</i>	123		++	O
	40. Typical Tits	Paridae				
122	Yellow-cheeked Tit	<i>Parus spilonotus</i>	7			Ea
123	Great Tit	<i>P. major</i>	14		+	O
124	Sultan Tit	<i>Melanochlora sultanea</i>	24		+	O
	41. Nuthatches	Sittidae				
125	Lilac Nuthatch	<i>Sitta solangiae</i>	4	T	+	O
126	Velvet-fronted Nuthatch	<i>S. frontalis</i>	12		++	O
	42. Flowerpeckers	Dicaeidae				
127	Yellow-vented Flowerpecker	<i>Dicaeum chrysorrheum</i>	124		+	O
128	Plain Flowerpecker	<i>D. concolor</i>	46		++	O
129	Fire-breasted Flowerpecker	<i>D. ignipectus</i>	7			Ea

No.	English name	Scientific name	Distribution	Endemism	Density	Notes
	43. Sunbirds, Spiderhunters	Nectariniidae				
130	Olive-backed Sunbird	<i>Nectarinia jugularis</i>	14		+	O
131	Fork-tailed Sunbird	<i>Aethopiga christinae</i>	126		++	O
132	Black-throated Sunbird	<i>A. saturata</i>	7			Ea
133	Green-tailed Sunbird	<i>A. nipalensis</i>	7			Ea
134	Gould's Sunbird	<i>A. gouldiae</i>	7			Ea
135	Little Spiderhunter	<i>Arachnothera longirostra</i>	7			Ea
136	Streaked Spiderhunter	<i>A. magna</i>	7			Ea
	44. White-eyes	Zosteropidae				
137	Oriental White-eye	<i>Zosterops palpebrosus</i>	146		++	O
	45. Buntings	Emberizidae				
138	Yellow-breasted Bunting	<i>Emberiza aureola</i>	1		?	O
139	Chestnut Bunting	<i>E. rutila</i>	146		++	O
	46. Waxbills	Estrildidae				
140	White-backed	<i>Lonchura striata</i>	12345		+++	O
141	Nutmeg Mannikin	<i>L. punctulata</i>	12345		+++	O
	47. Sparrows, Weavers, Munias	Ploceidae				
142	Eurasian Tree Sparrow	<i>Passer montanus</i>	123456		+++	O
	48. Starlings	Sturnidae				
143	Black-collared Starling	<i>Sturnus nigricollis</i>	1246		++	O
144	Chestnut-bellied Starling	<i>S. malabaricus</i>	7			Ea
145	Chinese Starling	<i>S. sinensis</i>	6		+	O

No.	English name	Scientific name	Distribution	Endangered	Density	Note
146	Grey Starling	<i>S. cineraceus</i>	7			Ea
147	Vinous-breasted Starling	<i>S. burmannicus</i>	7			Ea
148	Common Mynah	<i>Acridotheres tristis</i>	1246		++	O
149	Chinese Jungle Mynah	<i>A. cristatellus</i>	6		++	O
	49. Orioles	Oriolidae				
150	Asian Black-headed Oriole	<i>Oriolus xanthornus</i>	2		+	O
151	Maroon Oriole	<i>O. traillii</i>	3		+	O
	50. Drongos	Dicruridae				
152	Black Drongo	<i>Dicrurus macrocercus</i>	12345		++	O
153	Crow-billed Drongo	<i>D. annectans</i>	34		+	O
154	Bronzed Drongo	<i>D. aeneus</i>	26		+	O
155	Ashy Drongo	<i>D. leucophaeus</i>	36		+	O
156	Lesser Racked-tailed Drongo	<i>D. remifer</i>	126		++	O
157	Greater Racked-tailed Drongo	<i>D. paradiseus</i>	46		++	O
	51. Wood-swallows	Artamidae				
158	Ashy Wood Swallow	<i>Artamus fuscus</i>	136		++	O
	52. Jays, Crows	Corvidae				
159	Eurasian Jay	<i>Garrulus gladius</i>	3		++	O
160	Red-billed Blue Magpie	<i>Urocissa erythrorhyncha</i>	136		++	O
161	White-winged Magpie	<i>U. whiteheadi</i>	7			Ea
162	Common Green Magpie	<i>Cissa chinensis</i>	7			Ea

No.	English name	Scientific name	Distribution	Endangered	Density	Note
163	Black Racked-tailed Tree Pie	<i>Crypsirina temia</i>	26		+	O
164	Notch-tailed Tree Pie	<i>Temnurus temnurus</i>	6		+	O
165	Jungle Crow	<i>Corvus macrorhynchos</i>	12345		++	O

List of Reptiles

<i>N</i>	<i>Vernacular name</i>	<i>Scientific name</i>	<i>Dist</i>	<i>Enda</i>	<i>Dens</i>	<i>Note</i>
	I. Bo co vay	SQUAMATA				
	2. Ho tac ke	Gekkonidae				
1	Tac ke	<i>Gekko gekko</i>	124 56	T	++	Sp
2	Thach sung duoi san	<i>Hemidactylus frenatus</i>	35		++	O
	3. Ho nhong	Agamidae				
3	O ro cap ca	<i>Acanthosaura capra</i>	12		+	Sp
4	O ro vay	<i>Acanthosaura lepidogaster</i>	125 6		+++	Sp
5	O ro gai	Acanthosaura crucigera				
6	Nhong xanh	Calotes versicolor	6	T	+	Sp
7	Than lan bay dom	<i>Draco maculatus</i>			+	O
8	Rong dat	<i>Physignathus cocincinus</i>	26	V	++	O
	4. Ho than lan bong	Scincidae				
9	Than lan bong sa pa	<i>Mabuya chapaensis</i>	26		++	O
10	Than lan bong hoa	<i>Mabuya multifasciata</i>	124		+++	O
11	Than lan duoi do	<i>Scincella rufocaudata</i>	4		++	O
	5. Ho than lan chinh thuc	Lacertidae				
12	Liu liu chi	<i>Takydromus sexlineatus</i>				Ea
	6. Ho ky da	Varanidae				
13	Ki da van	<i>Varanus nebulosus</i>	246	V	+	Sp
14	Ki da hoa	<i>Varanus salvator</i>	126	V	++	Sp

<i>N</i>	<i>Vernacular name</i>	<i>Scientific name</i>	<i>Dist</i>	<i>Enda</i>	<i>Dens</i>	<i>Note</i>
	7. Ho tran	Boidae				
15	Tran dat	<i>Python molurus</i>	124	V	+	I
16	Tran gam	<i>Python reticulatus</i>	124	V	+	I
	8. Ho ran nuoc	Colubridae				
17	Ran sai kha si	Amphiesma khasiensis				Ea
18	Ran mai gam bac	<i>Calamaria septentrionalis</i>				
19	Ran leo cay	<i>Dendrelaphis pictus</i>	14		++	O
20	Ran soc dua	<i>Elaphe radiata</i>	124		++	O
21	Ran rao thuong	<i>Ptyas korros</i>	14	T	++	Sp
22	Ran nuoc	<i>Xenochrophis piscator</i>	136		++	Sp
23	Ran roi thuong	<i>Ahaetulla prasina</i>	2		+	Sp
24	Ran cuom	<i>Chrysopelea ornata</i>	2		?	Sp
25	Ran bong chi	<i>Enhydris plumbea</i>	12		++	Sp
	9. Ho ran ho	Elapidae				
26	Ran cap nong	<i>Bungarus fasciatus</i>	126		+	Sp
27	Ran ho mang	<i>Naja naja</i>	124	T	+	Sp
28	Ran ho chua	<i>Ophiophagus Hannah</i>	2	E	+	O
	10. Ho ran luc	Viperidae				
29	Ran luc cuom	<i>Trimeresurus mucrosquamatus</i>	7			Ea
30	Ran luc xanh	Trimeresurus stejnegeri	7			Ea
31	Ran luc mep	<i>Trimeresurus albolabris</i>	24		+	Sp
	II. Bo Rua	TESTUDINATA				
	11. Ho rua dau to	Platysternidae				
32	Rua dau to	<i>Platysternum megacephalum</i>	24	R	+	Sp
	12. Ho rua dam	Emydidae				

<i>N</i>	<i>Vernacular name</i>	<i>Scientific name</i>	<i>Dist</i>	<i>Enda</i>	<i>Dens</i>	<i>Note</i>
33	Rua hop ba vach	<i>Cuora trifasciata</i>	46	V	+	I
	13. Ho rua nui	Testudinidae				
34	Rua nui vang	<i>Indotestudo elongata</i>	7			Ea
35	Rua nui vien	<i>Manouria impressa</i>	24	V	+	Sp
	14. Ho ba ba	Trionychidae				
36	Ba ba gai	<i>Palea steindachneri</i>	12		++	Sp

List of Amphibians

<i>N o.</i>	<i>Vernacular name</i>	<i>Scientific name</i>	<i>Distribution</i>	<i>Endangered</i>	<i>Density</i>	<i>Note</i>
	Bo khong duoi	ANURA				
	1. Ho coc bun	Pelobatidae				
1	Coc may bun	<i>Leptobrachium pelodytoides</i>	7			Ea
	2. Ho coc	Bufonidae				
2	Coc nui poa loan	<i>Ophryophryne poilani</i>	7			Ea
3	Coc rung	<i>Bufo galeatus</i>	7			Ea
4	Coc nha	<i>Bufo melanostictus</i>	12456		++	St
	3. Ho ech nhai	Ranidae				
5	Coc nuoc san	<i>Ooeidozyga lima</i>	124		++	O
6	Coc nuoc nhan	<i>Phrynoglossus laevis</i>	126		++	O
7	Ech bam da	<i>Rana ricketti</i>				Ea
8	Ech nheo	<i>Rana kuhlii</i>				Sp

<i>N o.</i>	<i>Vernacular name</i>	<i>Scientific name</i>	<i>Distribution</i>	<i>Endangered</i>	<i>Density</i>	<i>Note</i>
9	Ngoe (nhai)	<i>Rana limnocharis</i>				Sp
10	Ech gai san	<i>Rana verrucospinosa</i>				Sp
11	Ech xanh	<i>Rana livida</i>				Ea
12	Ech gai	<i>Rana spinosa</i>	7			Ea
13	Chau	<i>Rana guentheri</i>	12		+++	Sp
14	Ech suoi	<i>Rana nigrovittata</i>	1246		+++	St
15	Ech dong	<i>Rana rugulosa</i>	126		++	O
16	Chang dai bac	<i>Rana taipehensis</i>	7			Ea
	4. Ho ech cay	Rhacophoridae				
17	Ech cay san	<i>Rhacophorus appendiculatus</i>				Ea
18	Ech cay mep trang	<i>Rhacophorus leucomystax</i>	12			
	5. Ho nhai bau	Microhylidae				
19	Nhai bau hay mon	<i>Microhyla heymonsi</i>	7			Ea
20	Nhai bau bec mo	<i>Microhyla berdmorei</i>	2			O
21	Enh uong	<i>Kaloula pulchra</i>	12			O
22	Nhai bau hoa	<i>Microhyla ornata</i>	7			Ea

Note: English and scientific names are followed to Richard Howard and Alick Moore, 1991. Fauna list in Kon Plong (Kon Tum) have been surveyed by Do Tuoc and Ngo Tu, 1983 in Ba Xa and Xa Hieu Commune, Do Tuoc and Le Trong Trai, 1992, Do Tuoc and Namisato, 2001, Eames J. C. and Nguyen Quang Truong, 2001 "A Preliminary Biological Assessment of Kon Plong Forest Complex. Kon Tum Province. Vietnam. Hanoi: WWF Indochina Programme".

Abbreviation of the columns above table

Distributions:

- 1: Dak Koi
- 2: Dak Phe
- 3: Mang Canh (Mang Den, Kon Du)
- 4: Hieu
- 5: Po E
- 6: Ngoc Tem
- 7: Mang But

Endangered species:

- E: Endangered
- V: Vulnerable
- R: Rare
- T: Threatened
- I: Insufficiently known

The Appendice of the Decision N° 18/HDBT January 17, 1992 by Prime Minister:

- +: IB: The first priority list of the wildlife prohibit hunting
- +: IIB: The second priority list of the wildlife prohibit hunting

Density:

- +: Rare
- ++: Medium
- +++: Common

Note: Identified measures

- I: Interview with local hunters
- Sp: Species identified with specimens

- O: Observation in the field surveys
- Ea: Jonathan C. Eames

3 Endemic and endangered animals Vietnam

Threatening animals list Vietnam

Biodiversity Profile of The Socialist Republic of Viet Nam

This biodiversity profile was compiled by WCMC in 1994

Endemic Vertebrates

Class: MAMMALIA

ARTIODACTYLA

Pseudoryx nghetinhensis ([Vu Quang Ox](#))

Sus bucculentus Vietnam Warty Pig

CHIROPTERA

Paracoelops megalotis

PRIMATES

Pygathrix avunculus Tonkin Snub-nosed Monkey

RODENTIA

Rattus osgoodi

Typhlomys chapensis

INSECTIVORA

Euroscaptor parvidens

Class: AVES

GALLIFORMES

Arborophila davidi Orange-necked Partridge

Arborophila merlini Annam Partridge

Lophura edwardsi Edward's Pheasant

Lophura hatinhensis Vietnamese Pheasant

Polyplectron germaini Germain's Peacock-Pheasant

PASSERIFORMES

Garrulax milleti Black-hooded Laughingthrush

Garrulax yersini Collared Laughingthrush

Jabouilleia danjoui Short-tailed Scimitar Babbler

Crocias langbianis Grey-crowned Crocias

Carduelis monguilloti Vietnamese Greenfinch

Class: REPTILIA

SERPENTES

Typhlops giadinhensis

Achalinus ater

Boiga multomaculata

Calamaria buchi

Lycodon paucifaciatus

Oligodon lacroixi

Oligodon macrurus

Opisthotropis jacobi

Parahelicops annamensis

Pararhabdophis chapaensis

Pareas tamdaoensis

Rhabdophis angeli

Ovophis tonkinensis

Trimeresurus cornutus

TESTUDINES

Annamemys annamensis Annam Leaf Turtle

SAURIA

Dibamus montanus

Dibamus smithi

Cnemaspis boulengeri

Gonydactylus condorensis

Gonydactylus irregularis

Gekko palmatus

Hemidactylus vietnamensis

Japalura fasciata

Leiolepis guttata

Emoia laobaoense

Eumeces tamdaoensis

Lygosoma angeli

Lygosoma corpulentum

Mabuya chapaense

Sphenomorphus buenloicus

Sphenomorphus poilani

Sphenomorphus rufocaudatus

Sphenomorphus tridigitus

Sphenomorphus tritaeniatus

Tropidophorus baviensis

Tropidophorus cocincinensis

Ophisaurus sokolovi

Dibamus greeri

Mabuya darevskii

Class: AMPHIBIA

ANURA

Bufo spp

Bufo pageoti

Bufo tienhoensis

Microhyla fusca

Microhyla picta

Leptobrachium pullus

Leptolalax bourreti
Megophrys intermedia
Megophrys poilani
Rana chapaensis
Rana delacouri
Rana fransipani
Rana maosonensis
Rana milleti
Rana montivaga
Rana toumanoffi
Philautus banaensis
Philautus gryllus
Philautus maosonensis
Chrixalus laevis
Rhacophorus annamensis
Rhacophorus calcaneus
Rhacophorus notater
Theلودerma bicolor
Theلودerma corticale

CAUDATA

Paramesotriton deloustali Vietnamese Salamander

Appendix 3 - Globally Threatened Animal Species of Viet Nam

Class: MAMMALIA

Order:ARTIODACTYLA

- [V] *Bos gaurus* ([Gaur](#))
- [V] *Bos javanicus* ([Banteng](#))
- [E] *Bos sauveli* ([Kouprey](#))
- [I] *Capricornis sumatraensis* (Mainland Serow)
- [V] *Cervus eldii* (Thamin)

[E] *Pseudoryx nghetinhensis** ([Vu Quang Ox](#))

Order:CARNIVORA

- [K] *Aonyx cinerea* ([Oriental Small-clawed Otter](#))
- [V] *Canis lupus* (Grey Wolf)
- [I] *Catopuma temmincki* ([Asiatic Golden Cat](#))
- [I] *Chrotogale owstoni* ([Owston's Palm Civet](#))
- [V] *Cuon alpinus* ([Asiatic Wild Dog](#))
- [E] *Cynogale bennettii* ([Otter-civet](#))
- [V] *Helarctos malayanus* ([Sun Bear](#))
- [K] *Lutra perspicillata* ([Smooth-coated Otter](#))
- [K] *Lutra sumatrana* ([Hairy-nosed Otter](#))
- [K] *Mustela strigidorsa* (Black-striped Weasel)
- [V] *Neofelis nebulosa* ([Clouded Leopard](#))
- [E] *Panthera tigris* ([Tiger](#))
- [K] *Pardofelis marmorata* ([Marbled Cat](#))
- [K] *Prionailurus viverrinus* (Flat-headed Cat)
- [V] *Selenarctos thibetanus* ([Asiatic Black Bear](#))

Order:CETACEA

- [K] *Neophocaena phocaenoides* (Finless Porpoise)
- [K] *Orcaella brevirostris* ([Irrawaddy Dolphin](#))
- [K] *Sousa chinensis* (Indo-Pacific Hump-backed Dolphin)

Order:PERISSODACTYLA

- [E] *Dicerorhinus sumatrensis* ([Sumatran Rhinoceros](#))
- [E] *Rhinoceros sondaicus* ([Javan Rhinoceros](#))
- [E] *Tapirus indicus* ([Malayan Tapir](#))

Order:PRIMATES

- [E] *Hylobates concolor* (Black Gibbon)
- [K] *Macaca arctoides* (Stump-tailed Macaque)
- [V] *Nycticebus pygmaeus* (Pygmy Loris)

[E] *Pygathrix avunculus* (Tonkin Snub-nosed Monkey)

[E] *Pygathrix nemaeus* (Douc Monkey)

[E] *Trachypithecus francoisi* (Franois' Leaf Monkey)

Order:PROBOSCIDEA

[E] *Elephas maximus* ([Indian Elephant](#))

Order:SIRENIA

[V] *Dugong dugon* ([Dugong](#))

Class: AVES

Order:ANSERIFORMES

[V] *Aythya baeri* (Baer's Pochard)

[V] *Cairina scutulata* (White-winged Duck)

Order:CHARADRIIFORMES

[R] *Larus saundersi* (Saunders' Gull)

[R] *Limnodromus semipalmatus* (Asian Dowitcher)

Order:CICONIIFORMES

[E] *Leptoptilos dubius* (Greater Adjutant)

[V] *Leptoptilos javanicus* (Lesser Adjutant)

[V] *Mycteria cinerea* (Milky Stork)

[E] *Platalea minor* (Black-Faced Spoonbill)

[I] *Pseudibis davisoni* (White-shouldered Ibis)

Order:COLUMBIFORMES

[R] *Caloenas nicobarica* (Nicobar Pigeon)

[R] *Columba punicea* (Pale-capped Pigeon)

Order:CORACIIFORMES

[R] *Aceros nipalensis* (Rufous-necked Hornbill)

[I] *Alcedo hercules* (Blyth's Kingfisher)

Order:FALCONIFORMES

[R] *Aquila heliaca* (Imperial Eagle)

Order:GALLIFORMES

[R] *Arborophila charltonii* (Chestnut-necklaced Partridge)

[I] *Arborophila davidi** (Orange-necked Partridge)

[R] *Lophura diardi* (Siamese Fireback)

[V] *Lophura edwardsi** (Edward's Pheasant)

[I] *Lophura hatinhensis** (Vietnamese Pheasant)

[V] *Lophura imperialis* (Imperial Pheasant)

[V] *Pavo muticus* (Green Peafowl)

[R] *Polyplectron germaini* (Germain's Peacock-Pheasant)

[R] *Rheinardia ocellata* (Crested Argus)

Order:GRUIFORMES

[E] *Eupodotis bengalensis* (Bengal Florican)

[V] *Grus nigricollis* (Black-necked Crane)

[V] *Heliopais personata* (Masked Finfoot)

Order:PASSERIFORMES

[I] *Crocius langbianis** (Grey-crowned Crocias)

[I] *Garrulax milleti** (Black-hooded Laughingthrush)

[I] *Garrulax yersini** (Collared Laughingthrush)

[I] *Jabouilleia danjoui** (Short-tailed Scimitar-Babbler)

[R] *Paradoxornis davidianus* (Short-tailed Parrotbill)

[R] *Paradoxornis ruficeps* (Rufous-headed Parrotbill)

[R] *Pitta elliotii* (Bar-bellied Pitta)

[R] *Pitta nympha* (Fairy Pitta)

[R] *Sitta formosa* (Beautiful Nuthatch)

[I] *Sitta solangiae* (Yellow-billed Nuthatch)

Order:PELECANIFORMES

[V] *Fregata andrewsi* (Christmas Island Frigatebird)

[I] *Pelecanus philippensis* (Spot-billed Pelican)

Order:PICIFORMES

[I] *Picus rabieri* (Red-collared Woodpecker)

Class: REPTILIA

Order:CROCODYLIA

[V] *Crocodylus porosus* (Estuarine Crocodile)

[E] *Crocodylus siamensis* (Siamese Crocodile)

Order:SERPENTES

[V] *Python molurus* (Indian Python)

[R] *Trimeresurus cornutus**

Order:TESTUDINES

[K] *Annamemys annamensis** (Annam Leaf Turtle)

[E] *Batagur baska* (Batagur)

[E] *Chelonia mydas* (Green Turtle)

[K] *Cuora galbinifrons* (Indochinese Box Turtle)

[E] *Eretmochelys imbricata* (Hawksbill Turtle)

[K] *Indotestudo elongata* (Elongated Tortoise)

[V] *Manouria emys* (Asian Giant Tortoise)

[K] *Manouria impressa* (Impressed Tortoise)

Class: AMPHIBIA

Order:CAUDATA

[I] *Paramesotriton deloustali** (Vietnamese Salamander)

Class: ACTINOPTERYGII

Order:CYPRINIFORMES

[K] *Probarbus jullieni* (Ikan Temoleh)

Order:OSTEOGLOSSIFORMES

[K] *Scleropages formosus* (Asian Boneytongue)

Order:SILURIFORMES

[V] *Pangasianodon gigas* (Giant Catfish)

[R] *Pangasius sanitwongsei* (Pla Thepa)

Class: BIVALVIA

Order:VENEROIDA

[K] *Tridacna crocea* (Crocus Clam)

[K] *Tridacna maxima* (Small Giant Clam)

[I] *Tridacna squamosa* (Scaly Clam, Fluted Clam)

Class: INSECTA

Order:COLEOPTERA

[I] *Lacconectus punctatus*

Order:LEPIDOPTERA

[K] *Teinopalpus aureus* (Golden Kaiser-I-Hind)

[R] *Tirumala gautama*

Class: MEROSTOMATA

Order:XIPHOSURA

[K] *Tachypleus tridentatus* (Horseshoe Crab)

Endangered Mammals of Viet Nam

***Bos gaurus* (H. Smith, 1827)**

Artiodactyla: **Bovidae**

Status: **VULNERABLE**

Explanation is in 1

BANTENG

Bos javanicus (D'alton, 1823)

Artiodactyla: **Bovidae**

Status: **VULNERABLE**

The Banteng weighs 500 - 900kg, and inhabits deciduous forested areas with glades and clearings, including hill country up to 2,000m. Where sympatric with the closely related to *Bos gaurus*, the Banteng occupies drier, more open habitats. Herds of females and young number 2 - 40, usually stay with only a single adult bull per group. Most bulls are therefore solitary or live in all-male groups. Normally a lowland species, it may migrate up into the hill forests during the monsoon season, where it feeds on new growth, including bamboo shoots. In the lowlands and during the dry season the Banteng feeds mainly on grass. The species thrives best in areas where traditional slash-and-burn shifting cultivation is practised.

KOUPREY

Bos sauveli (Urbain, 1937)

Artiodactyla: **Bovidae**

Status: **ENDANGERED**

One of the rarest surviving large mammals in the world, the Kouprey or Grey Ox occurs mainly in northern and eastern Cambodia, although its range overlaps into southern Laos, eastern Thailand and western Viet Nam. The Kouprey occupies a mosaic habitat composed of open parkland savanna interspersed with dense deciduous forest, open forest, and monsoon forest - a habitat that has been largely created by slash-and-burn

agriculture. It weighs 700 - 900kg, lives in mixed herds of up to 20 animals, and is both a grazer and a browser. Never considered to have numbered more than 2,000 animals since its discovery in 1937, the already highly endangered Kouprey population was decimated during the prolonged series of wars and insurgencies in Indochina during the last three decades. In 1988 the total population was roughly estimated at 100 - 300 animals, composed of 30 in Viet Nam, 40 - 100 in Laos, fewer than 200 in Cambodia, and small numbers in Thailand (MacKinnon and Stuart 1989).

VU QUANG OX

Pseudoryx nghetinhensis (Vu Van Dung *et al.* 1993)

Artiodactyla: **Bovidae**

Status: **ENDANGERED**

This species, named only in mid 1993, is the largest and most unexpected new living mammal species to be discovered in more than 50 years (the Kouprey *Bos sauveli* was described from Southeast Asia in 1937). The first evidence of its existence was the discovery of three pairs of unusual and distinctive horns, unlike those of any other mammal known to occur in Southeast Asia, during a 1992 survey of the Vu Quang Nature Reserve by the Viet Nam Ministry of Forestry and the World Wide Fund for Nature. Subsequent expeditions obtained more skeletal material from local hunters as well as three complete skins. Living specimens have not yet (early 1994) been seen by scientists, but the available material suggests a superficial resemblance to the Oryx. The horns are long, smooth, erect and almost straight. The coat is dark brown to chestnut brown, with a narrow black dorsal stripe and white markings on the face and throat. The Vu Quang Ox is known with certainty only from an area of pristine montane and evergreen forest covering some 4,000sq.km south of the Song Ca River in northern Viet Nam. The Vietnamese Government has extended the Vu Quang Nature Reserve from 16,000ha to 60,000ha and has plans for further reserves in the species range.

DHOLE

Cuon alpinus (Pallas, 1811)

Carnivora: **Canidae**

Status: **VULNERABLE**

The Dhole or Red Dog is a fairly large (10 - 20kg) pack-living canid found in thick scrub jungles and dense forests up to 3,000m throughout mainland Southeast Asia from India to eastern China, and on the islands of Java and Sumatra. Dholes prey mainly on medium-sized ungulates e.g. chital deer, wild boar and wild sheep, but rodents, reptiles, insects and berries are also taken. The population is in steep decline in most parts of India, the former USSR and the Himalayas due to disease (virulent canine distemper and rabies) exacerbated by contact with domestic dogs; deforestation; depletion of natural prey outside Reserves; and poisoning by herders. Fortunately reasonably large sub-populations exist in Protected Areas in India, where they have been studied by Johnsingh (1982, 1985). In the long-term, populations outside Protected Areas are unlikely to survive. Recommended conservation steps include assessments of the status of the species in Myanmar (which possibly harbours the largest remaining wild population) the former USSR and China, and the banning of the use of poisons in Grey Wolf control programmes in the former USSR. Dholes are legally protected in India. [References](#)

ASIATIC GOLDEN CAT

Catopuma temmincki (Vigors & Horsfield, 1827)

Carnivora: **Felidae**

Status: **INDETERMINATE**

At 12 - 15kg one of the largest of the "small cats", the Asiatic Golden Cat is widely distributed from Tibet, Nepal and India to southern China, and through Southeast Asia to Sumatra. It mainly inhabits dry deciduous forest and tropical rainforest, though it is occasionally found in more open habitats. It is mainly terrestrial, often hunts in pairs, and preys on hares, small deer, birds, lizards and other small mammals. Nowhere common in any part of its range, the species is declining in India and Indonesia due to

habitat destruction and intolerance of human disturbance. It is protected by law in Malaysia and in most Indian states. A survey of the status, distribution and ecology of the Asiatic Golden Cat is required to clarify its situation. [References](#)

CLOUDED LEOPARD

Neofelis nebulosa (Griffith, 1821)

Carnivora: **Felidae**

Status: **VULNERABLE**

CITES: **Appendix I**

The Clouded Leopard inhabits jungle and forests up to 2,500m from northeastern India and Nepal to southern China, Taiwan, through Southeast Asia to Sumatra and Borneo. A medium-sized cat weighing 16 - 23kg, it is believed to live in pairs which may hunt together. It preys on birds, monkeys, pigs, cattle, young buffalo, goats, deer and porcupines. Its numbers have declined drastically in the last 10 - 20 years due to habitat loss to agriculture and overhunting for its pelt. Although protected by law in most countries, illicit trade in skins continues. In Taiwan there is a growing market for pelts smuggled from mainland China, since a Clouded Leopard jacket is a traditional symbol of prestige. The species breeds well in captivity. [References](#)

TIGER

Panthera tigris (Linnaeus, 1758)

Carnivora: **Felidae**

Status: **ENDANGERED**

CITES: **Appendix I**

Within the past century the Tiger occurred from eastern Turkey and the Caspian Sea across Central Asia to the sea of Okhotsk, and south through the Indian sub-continent to Southeast Asia, Sumatra, Java and Bali. It is adapted to a wide range of habitats, from tropical rain forest, evergreen forest and mangrove swamp to grassland, savanna and rocky country. The largest species of cat, weighing from 65 - 384kg, the Tiger is usually

solitary and preys mainly on large mammals such as pigs, deer, antelope, buffalo, gaur and on occasion, man. Fond of water, Tigers can swim long distances. Male territories overlap those of several females. The Tiger now persists only in isolated pockets of its former range. Its decline has been caused by habitat loss, mainly to agriculture, logging, and malaria eradication programmes; overhunting (both legal and illegal) for sport, for skins, and for carcasses which are highly sought after for use in Asian traditional medicines; elimination of natural prey; and deliberate eradication programmes and persecution for fear of attacks on humans and domestic livestock - which have tended to increase as numbers of wild prey have dwindled.

MARBLED CAT

Pardofelis marmorata Martin, 1837

Carnivora: **Felidae**

Status: **INSUFFICIENTLY KNOWN**

CITES: **Appendix I**

The Marbled Cat inhabits thick jungle from Nepal, India and northern Myanmar through Southeast Asia to Sumatra and Borneo. A small (2 - 6kg) shy, nocturnal species, it is thought to prey on birds, squirrels, rats and other small mammals, lizards, snakes, frogs and small monkeys. It has always been regarded as rare, but this may reflect the inaccessibility of its habitat and its secretive nature. Protected by law in most parts of its range, the Marbled Cat is threatened by habitat destruction and disturbance, since it deserts forests that are even moderately disturbed. A survey of the distribution, status and ecology of the species is required to clarify its situation. [References](#)

ORIENTAL SMALL-CLAWED OTTER

Aonyx cinerea (Illiger, 1815)

Carnivora: **Mustelidae**

Status: **INSUFFICIENTLY KNOWN**

The Asian Small-clawed Otter is the smallest of the world's otters, rarely weighing more

than 5kg. The coat is coloured shades of brown, the throat being lighter (white or grey). Asian Small-clawed Otters have unusual hand-like front paws with increased tactile sensitivity and reduced webbing, which they use to forage for their prey of crustaceans, molluscs and small fish. A gregarious species, it is often seen in large groups of up to 15 animals, and captive studies suggest that these groups are composed of a dominant breeding pair and their offspring from successive litters. The species is found from Palawan (Philippines) through Indonesia, Southeast Asia, southern China, and westwards through the Himalayan foothills of Bangladesh, Bhutan and Nepal. A disjunct population occurs in southern India. This species is widespread and common in parts of its range, but its distribution is poorly known or unknown in several countries.

SMOOTH-COATED OTTER

Lutra perspicillata I. Geoffroy, 1826

Carnivora: **Mustelidae**

Status: **INSUFFICIENTLY KNOWN**

Smooth otters are so named for their shorter, smoother coats, as compared to the similar sized sympatric *Lutra* species. From captive studies this otter appears to be monogamous and is usually seen year-round in small family groups. Although little is known of the ecology of the species, it is known to occur in a variety of Asian habitats, from mangroves to freshwater wetlands and large forested rivers. The smooth-coated otter is distributed throughout southern Asia from Indonesia through Southeast Asia, and westwards through southern China and India, with an isolated population in Iraq (*L.p. maxwelli*). In most of its range it is sympatric with the Asian Small-clawed Otter and sometimes the other *Lutra* species. Of all the Asian otters, this one seems to be the most common through most of its range.

HAIRY-NOSED OTTER

Lutra sumatrana (Gray, 1865)

Carnivora: **Mustelidae**

Status: **INSUFFICIENTLY KNOWN**

The Hairy-nosed Otter is the rarest and least known of the Asian otters and is also the most difficult to identify in the field. It gets its name from the presence of hair on its rhinarium; in most other respects it is similar to the Eurasian Otter (*Lutra lutra*). The coat is very dark brown above, slightly lighter underneath, and the throat is sometimes white. It is probably verging on extinction in the northern parts of its range, and is of uncertain status elsewhere. This otter once occurred through Southeast Asia to Indonesia (Sumatra, Java and Borneo), although its exact current distribution is unknown. Field surveys are required throughout its range to determine current distribution and status; studies on ecology and conservation requirements should be initiated in protected areas where it is known to occur, seeking to identify those habitat features that must be conserved if this rare species is to survive and recover its numbers.

OWSTON'S PALM CIVET

Chrotogale owstoni Thomas, 1912

Carnivora: **Viverridae**

Status: **INDETERMINATE**

Owston's Palm Civet is marked with dark bands and stripes on the upper BODY BACKGROUND="I/wcmcbac.gif" and spots on the sides and limbs against a buff-coloured background. It is the sole living representative of its genus. It occurs in Northern Viet Nam, north Laos, and southern Yunnan and southwest Guangxi provinces, China. Very little is known about this species; it is believed to be largely terrestrial, preferring habitats in the vicinity of rivers in primary and secondary forests. It is able to survive close to villages; and is believed to feed mainly on invertebrates. It occurs in the Cuc Phuong National Park (22,200ha) in Ha Nam Ninh Province, Viet Nam; and several National Reserves in Yunnan, China. Surveys to locate additional populations of the species, and research to obtain ecological data as a basis for better conservation planning, are required. Increased resources are needed for Cuc Phuong National Park to increase protection and reduce poaching. The "Institute of Ecology and Biological

Resources" in Hanoi is conducting a conservation programme for Owston's Palm Civet in Viet Nam; including a cooperative captive breeding project with Hanoi Zoo (Nguyen Xuan Dang *et al.*, 1991). [References](#)

OTTER CIVET

Cynogale bennettii Gray 1837

Carnivora: **Viverridae**

Status: **ENDANGERED**

CITES: **Appendix II**

The Otter Civet has dark brown, dense, short fur and is similar in appearance to an otter. It is rare and little-known, it leads a semi-aquatic lifestyle which it has adapted for morphologically, to a higher degree of specialisation than is found in other aquatic viverrids. Its diet comprises fish, crustaceans, molluscs, birds, small mammals and fruits. The species range is Borneo, Sumatra, Peninsular Malaysia, Thailand and north Viet Nam. An Otter Civet is currently held in Bangkok Zoo, and is said to have been captured in Thailand. The species has never been bred in captivity, although it has been kept in several zoos. Even in more remote areas, *C. bennettii* is probably heavily affected by human colonisation and the expanding rice culture, which tend to proliferate along rivers, the habitat of the species. It is known to occur in protected areas. Necessary conservation measures include: surveys throughout its range to locate surviving populations; a study of identify the exact habitat requirements and the vulnerability to human interaction and environment alteration; and a captive breeding project to collate data on the captive maintenance of the species. [References](#)

SUN BEAR

Helarctos malayanus (Raffles, 1821)

Carnivora: **Ursidae**

Status: **VULNERABLE**

The Sun Bear was formerly widespread in the lowland forests of South-East Asia from

India eastward through Myanmar, southern China, Laos, Viet Nam, Thailand, Malaysia, and Indonesia. The species may now be extinct in India, Bangladesh and China, and the range is shrinking in most areas. Sun Bears inhabit protected areas in Thailand, Malaysia, Indonesia and possibly the Siju Sanctuary in India. In Thailand the species is called the "dog bear" because of its small size and short hair; it is the smallest of the eight bear species. It is mainly nocturnal, inhabits forest, preferring high branches and diet includes termites and honey. The Sun Bear is threatened by trade both for pets and to provide various products; bears are in demand for their meat and gallbladders to supply the expanding illegal trade market. Habitat destruction is another major threat, often caused by conversion of lowland areas to plantations. The Sun Bear is protected by law in China (a "first class conserved animal"), Thailand, and Indonesia. Legislation to conserve the species is poorly enforced, if at all, in most countries of its range. The Sun Bear is the least well-known of all bears, with a very bleak future due to the lack of management and understanding, coupled with habitat destruction and poaching (Servheen, 1990 and Mills, 1991). The Sun Bear is currently being studied in Sabah, Malaysia (Servheen, 1991). [References](#)

ASIATIC BLACK BEAR

Selenarctos thibetanus (G. Cuvier, 1823)

Carnivora: **Ursidae**

Status: **VULNERABLE**

The Asiatic Black Bear has a coat of smooth black fur except for the distinct 'V' shape of white fur on the chest. Its black claws easily distinguish it from the Sloth Bear (*Melursus ursinus*), which has white claws. It feeds upon a wide variety of vegetation, fruits, insects and sometimes small mammals. It inhabits forested uplands, mountains and tropical moist forest below alpine elevations in much of southern Asia. The former range extended from Afghanistan and Pakistan in the west, across northern India, Southeast Asia to China, eastern Russia, the Korean Peninsula and Japan. The species may now be extinct in Afghanistan, and is very close to extinction in South Korea and

Bangladesh. It is threatened by poaching, opportunistic killing and agricultural expansion throughout its range. The species is in demand in Thailand as pets and for products; for example, in 1989 single servings of bear paw soup sold for several hundred U.S. dollars. The export of bear gall bladders has been a major problem in China, the trade provides a large source of foreign capital as gall bladders can fetch high prices. Japan continues to trade in Asiatic Black Bear products. Specific legislation and efficient implementation is needed to protect bears from hunting. The species could become extinct throughout most of its range in the near future unless there are stricter controls on the trade in bear products. Asiatic Black Bears are protected by legislation in South Korea (although bears are imported for traditional medicinal products), and in eastern Russia. The species is marginally protected by law in Thailand and China. They are known to inhabit Indian protected areas, and hunting has been regulated in India since 1972 (Servheen, 1990). There are plans to study the natural history of the species in reserves in Taiwan, and a primary census is planned for Sichuan, China in 1991 (Servheen, 1991)

SUMATRAN RHINOCEROS

Dicerorhinus sumatrensis (Fischer, 1814)

Perissodactyla: **Rhinocerotidae**

Status: **ENDANGERED**

CITES: **Appendix I**

At 800kg the smallest member of the family, the Sumatran or Asian Two-horned Rhinoceros inhabits montane rain forest in South East Asia. A solitary species, it is primarily a browser, feeding on fruit, leaves, twigs and bark. Its sparse covering of long hair - in sharp contrast to the other hairless species of rhinoceros - has earned it the soubriquet of Woolly Rhinoceros. The original distribution stretched from Bhutan and eastern India through Myanmar, southern China, Thailand, and Malaysia to Sumatra and the island of Borneo (with unconfirmed reports of its presence in northern Laos, Cambodia and western central Viet Nam). Only 500 - 900 Sumatran Rhinoceros are

believed to remain, mostly in scattered inviable populations in Myanmar, Thailand, the Malay Peninsula, Sumatra and Borneo (Khan 1989). The decline has been caused mainly by hunting to provide horns and other parts of the carcass for traditional Oriental medicines. In 1990 Asian rhino horn was reaching a wholesale value of up to US\$54,000 per kg in Taiwan, partly because wealthy individuals were buying it not only to cure ailments but as an investment, since as wild stocks decline the price is expected to leap still higher (Bradley Martin and Bradley Martin 1991). Habitat destruction due to logging and agricultural development is however increasingly affecting the species - particularly in Sumatra which harbours the bulk of the remaining wild population and is under intensive development by Indonesia's transmigration programme. The Sumatran Rhinoceros is extremely sensitive to human presence, and readily abandons areas in which it has been disturbed. Conservation measures proposed include the capture of "doomed" animals from the wild to further develop the small captive population (24 were held in collections in the U.K., the U.S.A., Malaysia, Thailand and Indonesia in mid-1991 (Foose, 1991)); the concentration of *in situ* conservation efforts on the 7 - 9 wild subpopulations considered to be reasonably viable in the long-term out of the known total of 35; gazettement of new Protected Areas (e.g. Kerinci Seblat in Sumatra) to supplement those already containing the species; improved enforcement of existing legislation against poaching and trade in rhinoceros products; and the financing of surveys in Kalimantan (Indonesia), Thailand and northern Myanmar to determine whether appreciable populations of Sumatran Rhinoceros survive there.

JAVAN RHINOCEROS

Rhinoceros sondaicus Desmarest, 1822

Perissodactyla: **Rhinocerotidae**

Status: **ENDANGERED**

The Javan or Lesser One-horned Rhinoceros enjoys the dubious distinction of being the rarest large mammal in the world. Once widely distributed in South East Asia, from

eastern India through Bangladesh, Myanmar, Laos, Thailand, Cambodia, to Viet Nam and southwards to the Malay Peninsula and the islands of Sumatra and Java, it now definitely survives only in the Ujong Kulon N. P. on the westernmost tip of Java (Indonesia) and along the Dong Nai River in south-central Viet Nam. There are also unconfirmed reports of sightings in Cambodia and Laos. A solitary animal weighing up to 1,400kg, the Javan Rhinoceros inhabits lowland rainforest in river valleys and coastal plains, particularly secondary or disturbed growth areas where it browses on the twigs and branches of saplings of many different species. The population decline was due to overhunting, mostly illegal, to supply parts of the carcass (particularly the horn) to the traditional medicine industry, coupled with habitat loss to agriculture, logging and human settlement. Numbers in Ujong Kulon were as low as 21 - 28 in 1967, but thanks to strong field conservation efforts since then and full legal protection increased to 50 - 54 in 1989 (Khan 1989). The population may be at or near carrying capacity. The population at Dong Nai discovered in 1989 is believed to number only 10 - 15 and is severely threatened by poaching (Reece 1990). Proposed conservation measures include continued protection and efforts to close down the trade in rhino products, especially in Laos; the capture of wild rhinos at Dong Nai - where they are not secure; the development of a captive breeding programme since there are currently no Javan Rhinoceros in captivity; and the location and/or establishment of other populations in secure areas in the wild, since a single small population is always vulnerable to elimination by disease or catastrophic events such as cyclones or tidal waves (Khan 1989). However, the capture and relocation of Rhinoceros is difficult and involves high mortality rates (30% or more) so the captive breeding proposal remains controversial and has not been implemented.

MALAYAN TAPIR

Tapirus indicus Desmarest, 1819

Perissodactyla: **Tapiridae**

Status: **ENDANGERED**

The Malayan or Asiatic Tapir occupies similar habitats to the Central American Tapir in southern Myanmar and Thailand, the Malay Peninsula and Sumatra. It is strikingly marked: the front half of the BODY BACKGROUND="I/wcmcbac.gif" and the hind legs are black, and the rear half above the legs is white, rendering the animal almost invisible in moonlight. Weighing 250 - 300kg, the Malaysian Tapir is solitary, nocturnal, and both grazes and browses on grasses, aquatic vegetation, leaves, buds, soft twigs and fruits of low-growing shrubs. Numbers have declined drastically in Myanmar - where it is now almost extinct - Malaysia and Indonesia. The main threat to the species is the conversion of lowland forest to plantations and cultivation, but human disturbance and hunting also adversely affect it. Found in several Protected Areas it is protected by law in all countries of its range. Conservation measures necessary include stricter enforcement of laws against hunting tapirs and trespass into Protected Areas.

INDIAN ELEPHANT

Elephas maximus (Linnaeus, 1758)

Proboscidae: **Elephantidae**

Status: **ENDANGERED**

The Indian, Asiatic or Asian Elephant once occurred in a variety of lowland and montane forest and savanna habitats up to 3,600m from the Tigris and Euphrates basin in Syria and Iraq, through Asia south of the Himalayas and north into China. Today it occupies scattered fragments of its former range in 13 countries: Bangladesh, Bhutan, Myanmar, Cambodia, China, India, Indonesia, Laos, Malaysia, Nepal, Sri Lanka, Thailand and Viet Nam. Only between 34,000 and 54,000 - one tenth of the number of African elephant - survive in a land area of just 500,000 km² (Santiapillai & Jackson 1990). The population is concentrated in India (17 - 22,000 head) and Myanmar (3,000 - 10,000 head). Indian Elephants weigh 4 - 5 tonnes and eat up to 150kg of vegetation each day. It is now almost totally excluded from lowland habitats by human occupation, and in hilly areas where it is compressed into small pockets of remnant forest, conflict with surrounding agriculturists occurs. Crop-raiding is frequent and there are often

human deaths. In India alone about 200 people are killed every year.

<http://www.wcmc.org.uk/infoserv/country/vietnam/index.html>

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