

BRAZILIAN TAPIR

CARD 107

GROUP 1: MAMMALS

ORDER
Perissodactyla

FAMILY
Tapiridae

GENUS & SPECIES
Tapirus terrestris



The Brazilian tapir is a mammal that has remained unchanged for over 35 million years. This shy forest inhabitant is a relative of the horse and the rhinoceros.

KEY FACTS



SIZES

Length: About 6 ft. Tail 2 in.
Height to shoulder: 2 1/2 ft.
Weight: 500 lb.



BREEDING

Sexual Maturity: 2-3 years.
Mating season: Year-round.
Gestation: 390-400 days.
No. of young: 1.



LIFESTYLE

Habit: Solitary; occasionally found in pairs.
Diet: Aquatic vegetation, twigs, leaves, fruit, and grass.
Lifespan: Up to 30 years.



RELATED SPECIES

Baird's tapir, found from Mexico to Ecuador, west of the Andes.
Mountain tapir, from Colombia and Ecuador to Peru.
Malayan tapir, from Burma and Thailand to Malaysia and Sumatra.



■ Range of the Brazilian tapir.

DISTRIBUTION

Found from northern South America to southern Brazil, Paraguay, and northern Argentina. Widespread, but uneven numbers within these regions.

CONSERVATION

Habitat destruction is greatly reducing tapir populations, although the Brazilian tapir is not as threatened with extinction as some other species are.

FEATURES OF THE BRAZILIAN TAPIR

Coat: Short, sparse hairs, uniformly brownish black. Some white coloration around throat, neck, and chest.

Feet: Each foot has three toes ending in a hoof.



Snout: Keen sense of smell. Nostrils sniff out vegetation.

Trunk: Snout and upper lip form a short, flexible trunk.

The tapir originated in Europe. It moved to North America 35 million years ago and then spread to South America and Asia. Fossil forms have been found that indicate the existence of many prehistoric species. Today there are only four members of the family: three in both North and South America, and one in Asia.



DID YOU KNOW?

- The name tapir comes from a Brazilian Indian word meaning "thick," referring to the animal's tough hide.
- Brazilian natives claim that stones from the tapir's stomach have medicinal powers and that a powder ground from their hooves cures epilepsy.
- An ancient Malay legend says that the tapir was made by God from odds and ends left over after all the other creatures had been created.
- Because its trunk is so flexible, a tapir can explore a circle of ground one foot in diameter without moving its head.

HABITS

The Brazilian tapir is active mainly at night in its forested or wooded environment. The tapir scents, or marks with urine, its well-worn trails. It spends most of its time near water or swampy ground, splashing about or wallowing in the mud, which helps keep it cool. The Brazilian tapir is at home in the water and is a

fast swimmer, able to dive and stay underwater for long periods of time.

The Brazilian tapir is surprisingly agile for its size and bulk; it is able to scramble quickly up steep hill-sides and riverbanks.

The tapir is not as fast on land, but its bulk and tough hide enable it to push its

way quickly through thick undergrowth. When danger threatens, however, it will escape to water. If cornered and separated from water, the tapir will put up a serious fight, using its teeth as it charges its attacker.

In the heat of the day, tapirs usually rest in the shade of dense undergrowth.

FOOD & FEEDING

The tapir is a browser, feeding on aquatic plants, twigs, foliage, fruit, and a variety of other vegetation. Its favorite food is young green shoots, but it will also graze on grass and cultivated crops, making it unpopular with farmers. The variety in the tapir's diet helps it avoid accumulating dangerous levels of poisons that are

present in rainforest plants.

The tapir is a selective eater. It walks along with its snout close to the soil, turning its snout from side to side, stretching and withdrawing it to examine the ground. When it locates food, the tapir uses its trunk to pluck leaves and twigs and draw them into its mouth.

BREEDING

Mating between tapirs occurs at any time of year, since the females come into season about every two months.

The mating ritual is elaborate: the male chases the female before starting a mock fight featuring high-pitched squeals.

About 13 months after mating the female gives birth to a single young in a hiding place in the forest. Baby tapirs have yellow stripes or rows of spots on a dark brown background. This coloration camouflages them as they lie in the forest undergrowth. The markings fade when the young tapir is a few months old; within a year it has its adult coat. Baby tapirs become independent after about eight months.



Above: The tapir uses water to cool off and to get rid of any parasites.

Left: When pursued by predators, the tapir heads for water, where it can stay submerged for several minutes.

TAPIR AND MAN

Natives of the Brazilian jungle have long hunted the tapir as a source of meat and for its hide. Tapir flesh is considered a delicacy, and the hide produces excellent leather. It is also hunted because it occa-

sionally raids crops and plantations. But the tapir is extremely shy and raids crops only in desperation.

The future for the Brazilian tapir, which has survived for millions of years, is now

uncertain because of the destruction of its habitat. As the tropical forests are cleared for agricultural development, the tapir is forced to retreat into less suitable habitats, where it has less chance for survival.



Above: A tapir's stripes provide camouflage.

Right: A tapir uses its trunk much as an elephant does.



ASIAN ELEPHANT

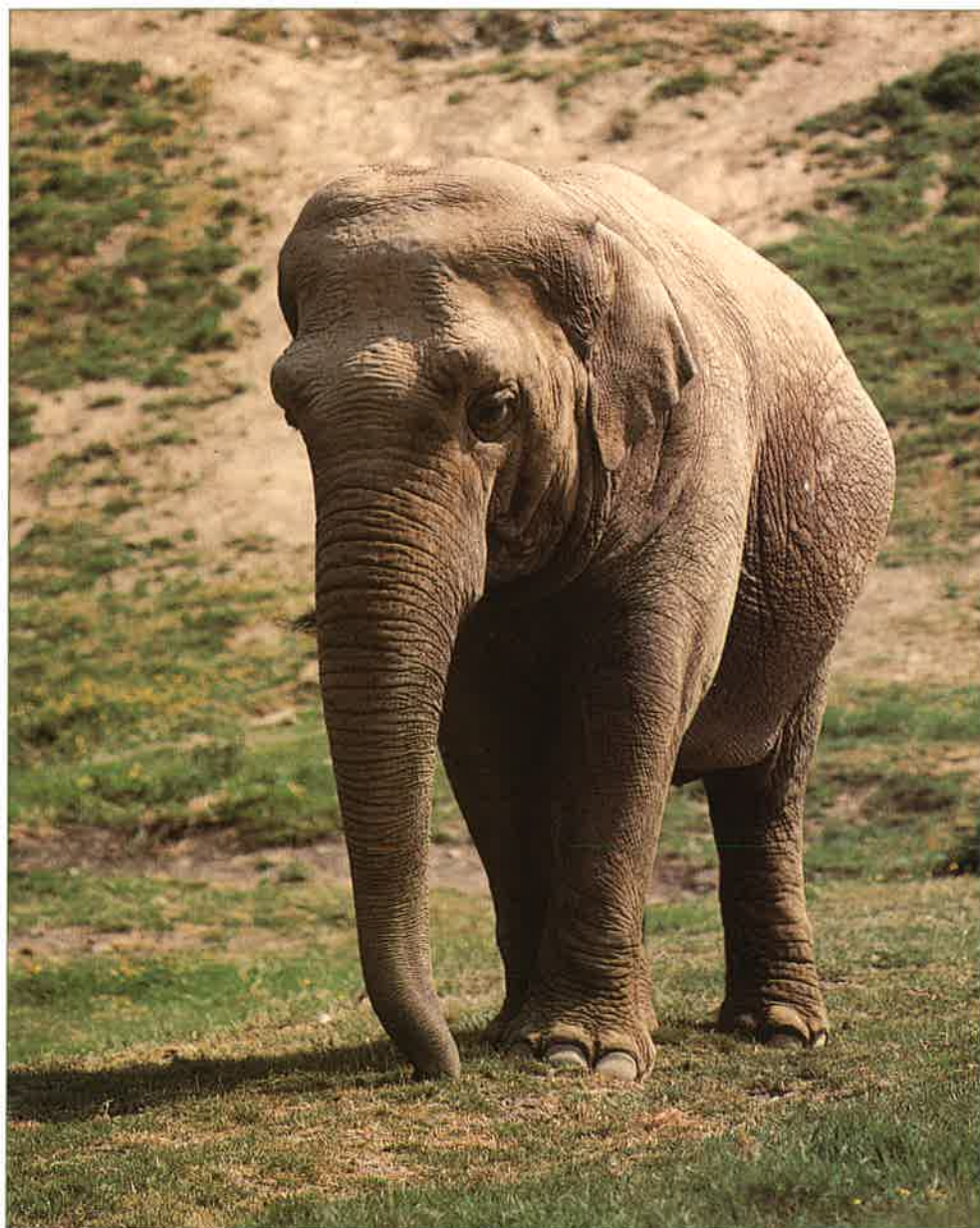
CARD 116

GROUP 1: MAMMALS

ORDER
Proboscidea

FAMILY
Elephantidae

GENUS & SPECIES
Elephas maximus



The Asian elephant is slightly smaller in size and has smaller ears than the African elephant. Long-living and intelligent, it has been domesticated by humans for the last 5,500 years.

KEY FACTS



SIZES

Length: 18-20 ft.
Height: 8-10 ft.
Weight: Up to 11,000 lb.



BREEDING

Sexual maturity: 15 years.
Mating: Usually in wet season.
Gestation: 22 months.
No. of young: Usually 1.



LIFESTYLE

Habit: Cow and young form a family unit. Bull is mainly solitary.
Call: Trumpets loudly when angry, excited, or separated. Also communicates by rumbling.
Diet: Vegetation, fruit, twigs, small branches, bark, and roots.
Lifespan: About 60 years.



RELATED SPECIES

The four Asian subspecies include the Indian elephant, Ceylon elephant, Sumatran elephant, and Malaysian elephant.



Range of the Asian elephant.

DISTRIBUTION

Once found throughout India and southeastern Asia. Now restricted to mountainous parts of India, Indochina, Sri Lanka, Indonesia, and southern China.

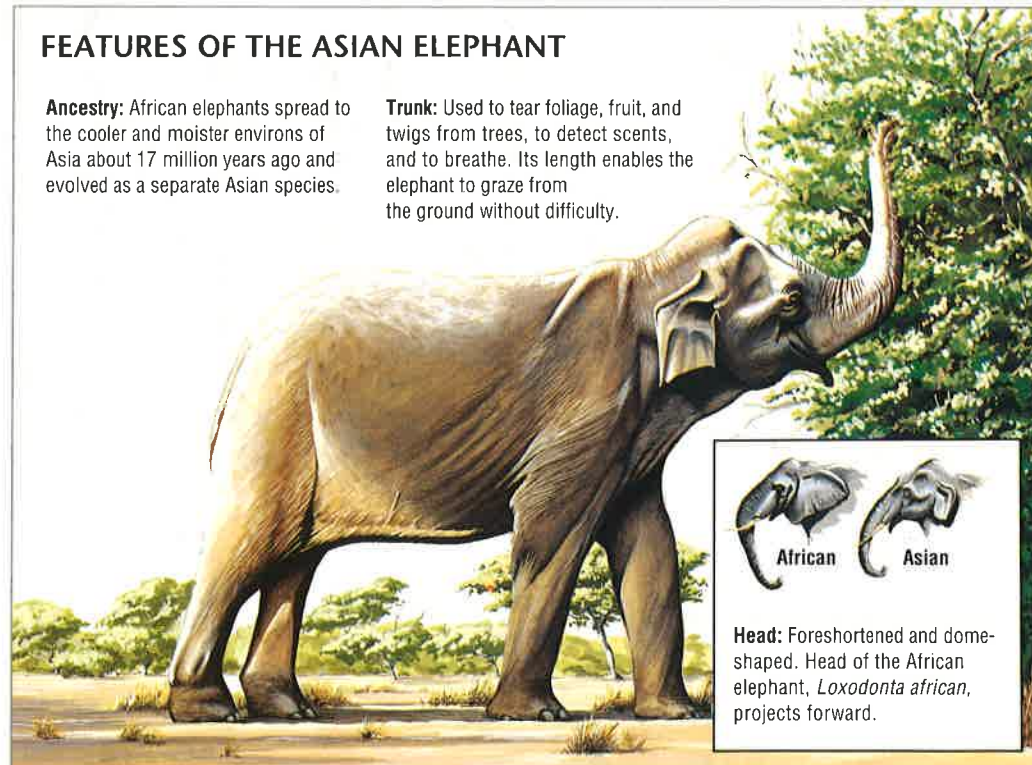
CONSERVATION

Worldwide, the Asian elephant's population stands at 42,600 to 57,500 (1990 figures). It is in danger of extinction throughout its natural habitat.

FEATURES OF THE ASIAN ELEPHANT

Ancestry: African elephants spread to the cooler and moister environs of Asia about 17 million years ago and evolved as a separate Asian species.

Trunk: Used to tear foliage, fruit, and twigs from trees, to detect scents, and to breathe. Its length enables the elephant to graze from the ground without difficulty.



Head: Foreshortened and dome-shaped. Head of the African elephant, *Loxodonta africana*, projects forward.



A sociable animal, the Asian elephant protects other group members. Adults surround the young when danger threatens the herd. Females in the group adopt orphaned calves, and members stay to assist shot or wounded elephants, often putting themselves at risk.

FOOD & FEEDING

The Asian elephant prefers to browse rather than graze. It uses its adaptable trunk to pick green leaves, fruit, and new plant shoots. The elephant tears off the soft bark of young trees and puts it into its mouth with the trunk.

The Asian elephant needs over 300 pounds of food a day. If its trunk is damaged, the elephant will starve. The elephant also needs large

amounts of water, which it sucks up with its trunk and squirts into its mouth.

The Asian elephant's great size makes it easy to travel long distances to find food and water within its large home range. Generations of elephants often follow the same paths between feeding areas, making wide "elephant roads" through even dense jungle areas.

BREEDING

During the *rutting* (mating) season the Asian *bull* (male) elephant produces high levels of the hormone "musth" and acts more aggressive.

Rutting occurs late in the rainy season, which is also when the females go into heat. The arrival of calves 22 months later coincides with a new rainy season and a plentiful food supply.

During birth, a second elephant cow will protect the mother from lions, tigers, and hyenas that prey on calves.

At birth the Asian elephant weighs over 200 pounds; it

grows rapidly the first few years. At 15 years growth slows, but it continues throughout the elephant's life. Between 20 and 30 years the bull elephants have another growth spurt.

The female Asian elephant can live beyond childbearing age, which is unusual among animals. But today fewer elephants are living long lives. Only 50 percent of wild Asian elephants survive past 15 years, and only 20 percent reach 30. As hunters kill younger and younger elephants, the animal's chance for a long life dwindles.

Left: Wild herds roam the shores of the man-made lake at the Periyar Reserve, India.

Right: Sri Lankans scrub a working bull with methods used thousands of years ago.

DID YOU KNOW?

- An adept swimmer, the elephant loves water and sometimes uses its trunk as a snorkel.
- Like humans, the elephant cries when distressed. This occurs regularly in captive elephants.
- The elephant, like the whale, emits low-frequency calls too low for humans to hear. Other elephants can hear the sounds more than 12 miles away.
- To counterbalance its loss of habitat, the elephant regulates its population without human intervention. It reaches puberty later and extends the period between births.

BEHAVIOR

The elephant grows throughout its life, so the largest elephant in a group is also the oldest. Despite its size the elephant can move quietly, and firm ground barely shows its tracks. When a member gets separated from the group in wooded and jungle areas it emits a grumbling purr to keep in contact.

The sexes live apart most of the time. The female stays with the family unit of sisters and mothers and daughters with their offspring. Once mature, the female calf remains with the group while the young male joins a bachelor herd. When mature, a bull lives alone or in small, temporary groups.

Right: The single calf stays close to its mother and may even hide from danger under her belly.



ELEPHANT & MAN

For centuries humans have used the Asian elephant as a means of transportation, a beast of burden, a tool of war, and a religious symbol. But now its population stands at only 50,000.

Still today, in forestry work, the elephant fells trees and transports logs. Hindu people value and revere the elephant.

BARBARY APE

CARD 118

GROUP 1: MAMMALS

ORDER
Primates

FAMILY
Cercopithecidae

GENUS & SPECIES
Macaca sylvana



Barbary apes were once common throughout North Africa. Today they are found only in the cedar, pine, and oak forests of the Atlas Mountains in Algeria and Morocco.

KEY FACTS



SIZES

Length: Male, 2-2 1/2 ft. Female, slightly smaller.

Weight: Male, 15-22 lb. Female, 9-15 lb.



BREEDING

Sexual maturity: 3-4 years.

Breeding season: November to March.

Gestation: 147-192 days.

No. of young: 1, occasionally 2.



LIFESTYLE

Habit: Sociable, groups of 10-30.

Diet: Fruit, seeds, roots, bark, and buds.

Lifespan: 20 years.



RELATED SPECIES

Other monkeys in the macaque (*Macaca*) genus include the pig-tailed macaque, *M. nigra*, and the endangered lion-tailed macaque, *M. silenus*.



Range of the Barbary ape.

DISTRIBUTION

Found in northwestern Africa in Morocco and Algeria. One colony exists on Gibraltar.

CONSERVATION

The total population is approximately 1,200 to 2,000 Barbary apes. Habitat destruction is causing a decline in numbers.

FEATURES OF THE BARBARY APE

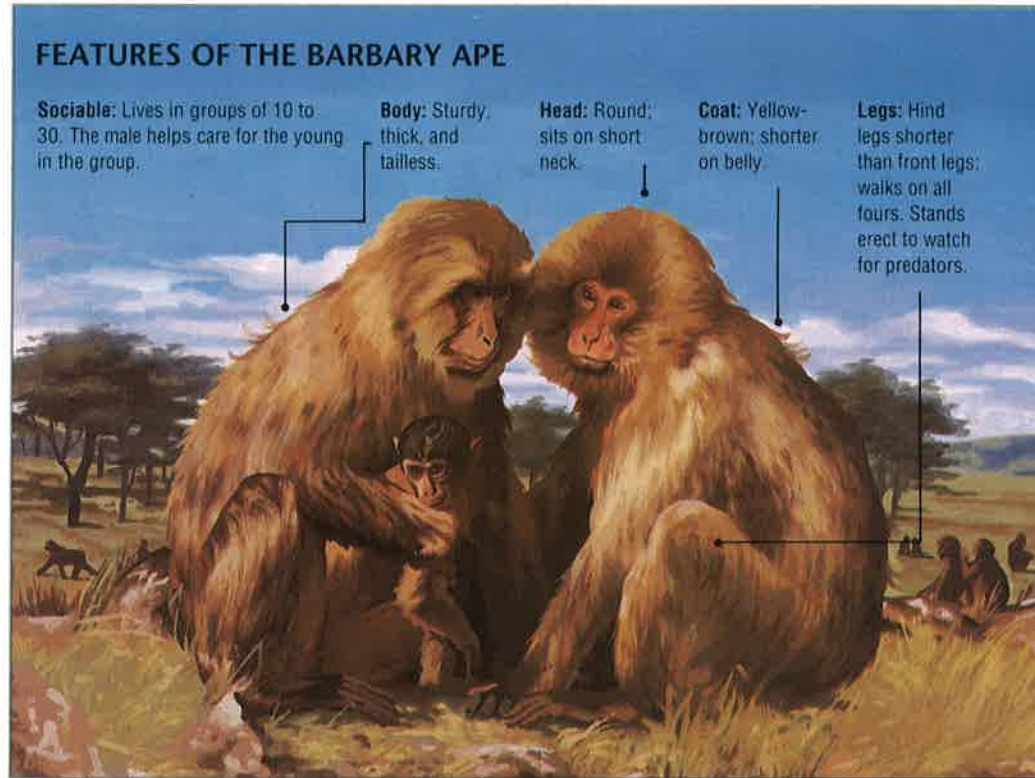
Sociable: Lives in groups of 10 to 30. The male helps care for the young in the group.

Body: Sturdy, thick, and tailless.

Head: Round; sits on short neck.

Coat: Yellow-brown; shorter on belly.

Legs: Hind legs shorter than front legs; walks on all fours. Stands erect to watch for predators.



Barbary apes are sociable animals that can live peacefully among other species of ape. These primates were once common throughout Europe but now live only in Algeria, Morocco, and Gibraltar.

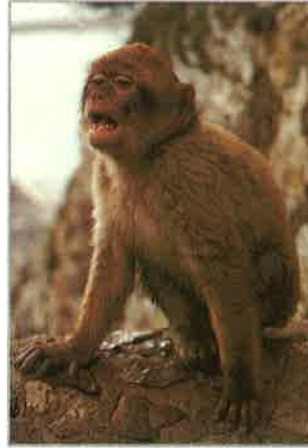


Left: *The young Barbary ape is suckled by its mother for three months. It becomes independent at six months.*

FOOD & FEEDING

In Algeria and Morocco, Barbary apes eat a varied diet of fruit, herbs, seedlings, seeds, and roots. In winter, when food is scarce, they eat buds, needles, and bark.

These sociable apes share their watering holes with other species of ape during the dry season.



BARBARY APE & MAN

Man is the main threat today to the Barbary ape's existence. This is especially true for those apes that live on the plains, where farmers hunt them because of the damage they do to crops.

The only Barbary apes not found in North Africa today live in the colony on Gibraltar. These are descendants of the European apes that existed during the Pleistocene Era, although the colony's population has been

reinforced by breeding with the North African apes.

The population of the apes on Gibraltar has changed over the years. In 1858 only three Barbary apes survived an epidemic, and more animals were brought to the island from North Africa. During World War II, the British again restocked the colony on Gibraltar by adding to the population from the apes in Algeria and Morocco.



Above left: *The apes on Gibraltar are the only survivors of the European Barbary ape.*

Left: *An adult grooms a young Barbary ape.*

Below: *Barbary apes rarely exhibit aggressive behavior.*

DID YOU KNOW?

- In 1942 Winston Churchill ordered the immediate restocking of the Barbary ape colony on Gibraltar, which was a vital strategic base for Great Britain during World War II. Legend had it that as long as there were apes on Gibraltar it would remain under British rule.
- The Barbary ape's name probably comes from the "Barbary States." This term was once used for the North African states of Tripolitania, Tunisia, Algeria, and Morocco.

BEHAVIOR

Barbary apes are found on the plains and mountains of Algeria and Morocco. They can live at altitudes of up to 6,500 feet. The apes inhabit forest clearings and sparse undergrowth. They are often found among cedar, pine, and oak forests. There is also one colony that lives on the Rock of Gibraltar, which lies between the Atlantic Ocean and the Mediterranean Sea.

Barbary apes are sociable and live in highly organized communities of up to 30 animals. They

occupy territories of several square miles that sometimes overlap with those of troops of other ape species. The Barbary apes and the other species are able to live near each other without territorial problems. At night the Barbary apes sleep in trees or among rocks; during the day they roam their territory, jumping and climbing among the rocks and trees. The apes usually move on all four legs, standing on their hind legs only to survey the area for predators.

BREEDING

The male Barbary ape actively cares for the young of the group. He establishes strong bonds with individual infant apes and with other males. Because a female may have several males, it is not easy for researchers to determine *paternity* (fatherhood) of the young. Therefore, the reason for the bonding between a male and several infant apes is unknown, since such bonding normally occurs only between the young and its parents. Some

naturalists believe that females may be more likely to choose nurturing males as mates, so the males try to exhibit this trait.

The adult male begins caring for the young a few days after their birth. He grooms them, carries them around, and plays with them. He also may present a young ape to another adult male. All three apes then make chattering noises and embrace each other. This is seen as friendly behavior, though other species would consider it threatening.



CAPE BUFFALO

CARD 119

GROUP 1: MAMMALS

ORDER
Artiodactyla

FAMILY
Bovidae

GENUS & SPECIES
Syncerus caffer



The Cape buffalo is one of the largest animals on the African plains. Its great herds, sometimes hundreds strong, are highly organized, especially when fending off predators.

KEY FACTS



SIZES

Height: 4-6 ft.
Length: 8-11 ft.
Weight: Female 1,000 lb. Male 1,500 lb.



BREEDING

Sexual maturity: 2 years. Mating does not occur until 4-6 years.
Mating season: Varies from region to region, peaking during the rainy season.
Gestation: 340 days.
Weaning: 6 months.
No. of young: 1.



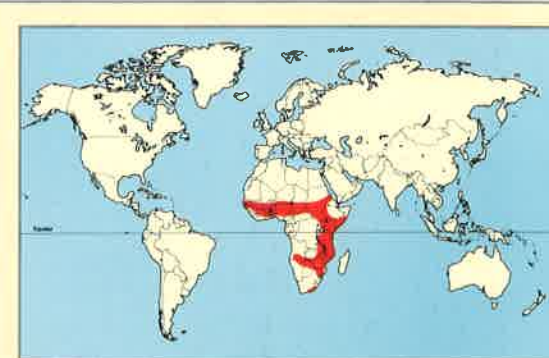
LIFESTYLE

Habit: Sociable, forming herds of up to 1,000. Also form smaller bachelor herds. Some old males are solitary.
Diet: Grass, foliage.
Lifespan: About 16 years.



RELATED SPECIES

The forest buffalo is a subspecies of the Cape buffalo, *Syncerus caffer*.



Range of the Cape buffalo.

DISTRIBUTION

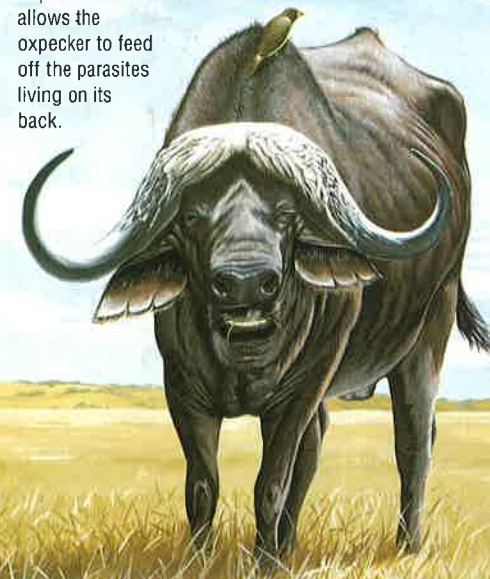
Africa south of the Sahara. The forest buffalo occurs in the lowland forests of central Africa, while the Cape buffalo lives across savannah regions.

CONSERVATION

Hunting for food and sport have decreased the Cape buffalo's numbers. It is also killed by farmers who think the animal spreads disease and raids crops.

FEATURES OF THE CAPE BUFFALO

Oxpecker: The Cape buffalo allows the oxpecker to feed off the parasites living on its back.



Male: Stocky and larger than the forest buffalo. Blackish body with heavy horns curving out and then down before curling up to the tip. Large ears partially hidden by horns.

DWARF FOREST BUFFALO



Light build and smaller than Cape buffalo. Has thick, reddish or bright red hair.

Female and calf: Largest herds made up of adult females and calves under two years old. Female calves under two years stay close to their mothers while males stay within her vicinity. Three- to four-year-old males congregate together in small groups away from adult males.



The Cape buffalo has a fearsome reputation among predators. With its massive build and great, curving horns, the animal puts up a determined fight when attacked. Wounded buffaloes have been known to wait in cover, ready to charge their pursuers as they approach.

FOOD & FEEDING

The Cape buffalo primarily grazes, but it will eat the leaves of bushes. It feeds in the evening and chews the cud at night. It rests in the shade during the heat of the day. In the dry season, the Cape buffalo moves into available forests or wetter valley bot-

toms. Without a good supply of vegetation, it quickly loses weight.

The Cape buffalo needs plenty of water. It makes daily drinking trips in the morning and evening. Old, solitary males spend much of the day wading in cool water.

Left: A Cape buffalo keeps cool during the hot African day by wading in mud pools.

Right: As this Cape buffalo drinks, an oxpecker feeds on the fleas living on its hide.



DEFENSES

This large, powerful animal has little fear of predators. Hyenas and leopards kill stranded calves. Lions and large crocodiles prey on isolated adults such as elderly males. But the Cape buffalo usually fights back. Single lions often fail to capture them, and buffaloes can toss or gore the cats with

their horns.

In large herds buffalo are almost immune to danger. They may initially run from a predator, but they quickly turn and form a compact group with the adults turned toward the danger. The herd also comes to the aid of animals in distress.

HABITS

The Cape buffalo roams across the grassy plains and open woodlands of sub-Saharan Africa. It stays in areas with good cover and a reliable water source.

Herds vary in size from small bands of fewer than 10 animals to huge groups of more than 1,000. The largest herds, composed mainly of females and offspring, are found on the open plains.

Conflicts between males may occur during breeding season. These are limited to shows of aggression rather than actual fights, which could easily result in the death of both animals.

The males' sociability

depends on their age. Three-year-old males leave their mothers and form small all-male groups either within or outside the herd. The females drive away older males from the herd to fend for themselves on the plains.



DID YOU KNOW?

- In spite of its size and bulk, the Cape buffalo can run at speeds of almost 37 miles per hour.
- The Cape buffalo has a very thick, protective hide. If alarmed, it will readily escape through dense thornbushes that would deter most animals.
- During a fight between male buffaloes, the clash of horns was so violent that one bull was tossed in the air.

Above: The charging buffalo chases away a lion.

Left: Large herds use social organization.

Right: A mother watches her calf.

BREEDING

Peak mating times occur in the rainy seasons when the animals are in the best condition. A female may mate with a succession of males, but she only becomes pregnant by one of her mates.

Gestation lasts 11 months,

and in a normal year the female gives birth before the rainy season. This ensures that she has plenty of food to produce milk for the quickly growing offspring. The calf reaches sexual maturity in two years and breeds at the age of four.



GOLDEN LION TAMARIN

CARD 120

GROUP 1: MAMMALS

ORDER
Primates

FAMILY
Callithricidae

GENUS & SPECIES
Leontopithecus rosalia



The golden lion tamarin has a coat that "shines like gold dust in the light." It is a close relative of the marmoset and is one of the most endangered of all mammals.

KEY FACTS



SIZES

Length: Head and body, about 1 ft. Tail, slightly shorter.
Weight: 1 1/2 lb.



BREEDING

Sexual Maturity: About 15 months.
Mating season: Year-round.
Gestation: 5 months.
No. of young: 1-3, usually twins.



LIFESTYLE

Habit: Sociable in family groups. Aggressive to intruders.
Diet: Fruit, flowers, tender vegetation, insects, and small vertebrates.
Lifespan: 10-15 years in captivity.



RELATED SPECIES

There are 8 marmosets and 14 tamarins in the family. The genus has 2 other golden tamarins: the golden-headed lion, and the golden-rumped tamarin.



■ Range of the golden lion tamarin.

DISTRIBUTION

Found only in a stretch of coastal forest in South America, near Rio Sao Joao, and the Poco d'Anta Reserve in Brazil.

CONSERVATION

The tamarin is critically endangered everywhere, mainly through loss of habitat. It has recently been bred successfully in zoos around the world. Over 40 animals have been reintroduced to the rain forests of southeast Brazil.

FEATURES OF THE GOLDEN LION TAMARIN

Coat: Long, silky, and red-gold in color. Lionlike mane frames its face, sweeping back over the head.

Face: Bare skin is a pink-purple color. Large, round eyes; pug nose.



Feet: Long and narrow; elongated fingers. Forearm is shortened; hand as long as forearm.

Hands: The three middle fingers are connected at the central joint by a flap of skin.



The golden lion tamarin occupies only a tiny—and shrinking—area of the equatorial forest regions of Brazil in South America. Its two close relatives, the golden-headed lion and the golden-rumped tamarins, live in similarly small locations in the states of Bahia and Sao Paolo and are equally as endangered.

GOLDEN LION TAMARIN & MAN

With its striking appearance, the golden lion tamarin has long been hunted as a prize exhibit for zoos. Since the seventeenth century it has also been popular as an exotic pet. Until 1960, the capture and export of this animal were legal. But these practices still continue illegally today.

Unlike some of its relatives, the golden lion tamarin does not settle in disturbed forest. The ever-increasing demands

Left: *The main threat to the tamarin is shrinking natural forest habitat.*

put on the forest by man has meant that much of the animal's natural habitat has been destroyed. This is the main reason that it has become endangered.

The United States began a program to reintroduce the golden lion tamarin into selected areas, particularly the Poco d'Anta Reserve, near Rio de Janeiro. But much of the reserve was destroyed by fire, forcing many of the 75 to 150 tamarins living there to move into areas that are not suitable as habitat.

DID YOU KNOW?

- Only two to three percent of the golden lion tamarin's original wild habitat still exists.
- Grooming is an important part of the golden lion tamarin's daily activity. It helps to reinforce family ties. Tamarins even pick and clean each other's teeth.
- The male golden lion tamarin has been observed feeding its young.
- The marmoset and tamarin group of monkeys includes the smallest monkey of all: the pygmy marmoset, which is only five and a half inches long. The golden lion tamarin is the largest member of the family.

FOOD & FEEDING

The golden lion tamarin is an *omnivore*: it eats both meat and plants. It collects food in its treetop home, such as fruits, flowers, and plant nec-

tars. It also searches in the branches for insects, frogs, lizards, snails, and bird eggs.

Below: *The tamarin uses facial expressions for communication.*



HABITAT

The golden lion tamarin inhabits *primal forest* (forest that has not been affected by man). It lives high in the treetops. Because it is sensitive to direct sunlight, it usually retreats into dense foliage during the hottest part of the day. It needs continuous forest canopy for survival.

The golden lion tamarin spends its day in quarrelsome play with other tamarins. It jumps easily through the trees, using its elongated fingers to hold onto branches.

Unlike many other monkeys, it does not use its long tail to grasp branches.

The tamarin lives in family groups. Although sociable within its family, it is very aggressive with intruders. If startled, the tamarin raises its mane, bares its teeth, and makes high-pitched shrieks. Sometimes adults of the same sex fight to the death.

Right: *The golden lion tamarin has claws instead of nails. They help it grip branches.*



BREEDING

The golden lion tamarin stays with one partner and breeds throughout the year. The male assists at the birth and washes the young—usually twins.

The newborn tamarin looks like its parents, but its hair and mane are short. It clings tightly with its hands and feet to either of its parents. Every two to three hours the male gives one young to the female. She nurses it for about 15 minutes and then hands it back to the male.

When the young tamarins are about three weeks old, they begin to explore their surroundings. They continue to ride on their parents' backs for about a month.

At four weeks, the parents give their young soft food, although they are not yet weaned. They can be on their own at three to five months but continue to run to their parents if danger threatens. Many young stay with their parents, never leaving the large family group.