

The mountain zebra is found in Angola, Namibia, and western and southeastern South Africa.

It is well adapted to arid conditions and can survive for up to three days without water. Later, when searching for water, it may dig down as far as three feet in a riverbed.

HABITS

The mountain zebra is an agile climber ideally suited to southwestern Africa's mountainous grasslands.

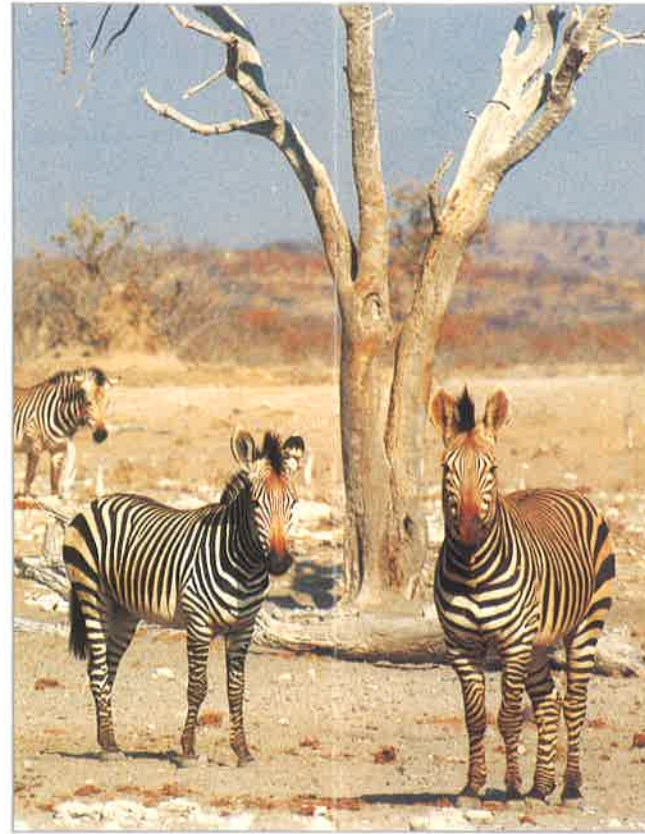
This member of the horse family lives in small herds, often with some antelopes. The zebra's keen hearing and eyesight make it quick to warn others in the herd when their main enemy, the lion, is near.

A herd usually consists of a stallion with one to six mares and their young. The noma-

dic group is led by a mare. The stallion follows at the rear or walks on one side to defend the herd.

In their second year males leave to form a bachelor herd. Later, they collect mares to form their own herd, or they take over an existing herd from a weak, older stallion.

Right: Mountain zebras are social members of the horse family that gather in small herds.



FEEDING

The mountain zebra spends many hours a day grazing, always remaining alert to predators. It searches for tender shoots of grass but often has to fill up on coarser grass. If necessary, the zebra

Left: The mountain zebra's rump has narrow horizontal stripes.

eats the bark, leaves, buds, and fruit of trees. It has sharp incisor teeth to cut the grass and ridged cheek teeth to grind it to a semipulp.

The mountain zebra has adapted to its extremely arid habitat and can go without water for three days or more.

DID YOU KNOW?

- The three zebra species are no more closely related to each other than they are to horses and asses, which belong to the same family.
- Zebras graze for 60 to 80 percent of the day.
- Zebras mix with other

grass-eaters such as wildebeest since they eat grass at different stages of growth.

- When grooming itself, the zebra likes to roll in mud. When the mud dries and is shaken off, it pulls loose hair and dry skin away with it.

MOUNTAIN ZEBRA & MAN

Farmers once regarded the mountain zebra as a pest because it competed with cattle for grazing. They shot zebras in large numbers and were given a reward for each tail.

The hunting nearly killed off one subspecies—the Cape

mountain zebra. In 1913 the last 27 animals received protection in a national park near Cradock in South Africa. The population has since grown.

Zebras are popular in zoos and circuses, but they are not easily tamed.

BREEDING

The female comes into heat (is ready to mate) several times a year, but she usually mates so the birth coincides with spring's abundant grass.

During courtship the stallion nips at the mare's legs, kneels down in front of her, and makes squealing noises. She signifies acceptance by angling back her ears and opening her mouth wide.

A single foal is born and is up on its feet within an hour.

After a few hours it is ready to move with the herd, so that there is little chance for a lion to make a kill. The foal can graze within a month or two, although it may not be fully weaned for a year.

The young stay with the herd for about two years. Then the males are driven out by the stallion. Some females may be lured away by another stallion.

Below: The foal is up and active from the day it is born.



PRONGHORN

GROUP 1: MAMMALS

ORDER
Artiodactyla

FAMILY
Antilocapridae

GENUS & SPECIES
Antilocapra americana



The pronghorn's name comes from the unusual shape of its horns. It can outprint a horse and is the fastest land mammal.

KEY FACTS



SIZES

Length: Head and body, 3-5 ft.
Tail, 3-7 in.
Height: 2 1/2-3 1/2 ft.
Weight: 80-150 lb.



BREEDING

Sexual maturity: Both sexes mature at 15 months, but male seldom breeds until 5 years.
Breeding season: March to October.
Gestation: 252 days.
No. of young: Usually 2.



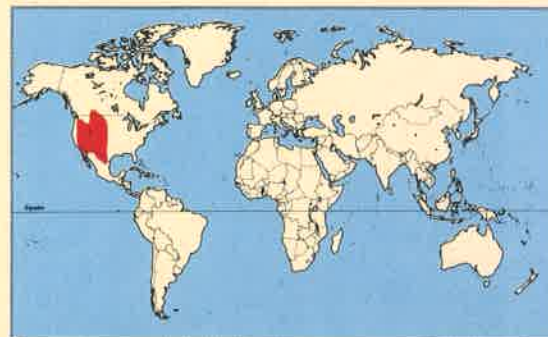
LIFESTYLE

Habit: Territorial grazer; lives in herds.
Diet: Shrubs, grass, and cacti.
Lifespan: 9-10 years in the wild.
Up to 12 years in captivity.



RELATED SPECIES

Subspecies include *Antilocapra americana americana*, *A. a. sonoriensis*, *A. a. mexicana*, and *A. a. peninsularis*.



Range of the pronghorn.

DISTRIBUTION

Found throughout western parts of North America, from Canada south to northern Mexico.

CONSERVATION

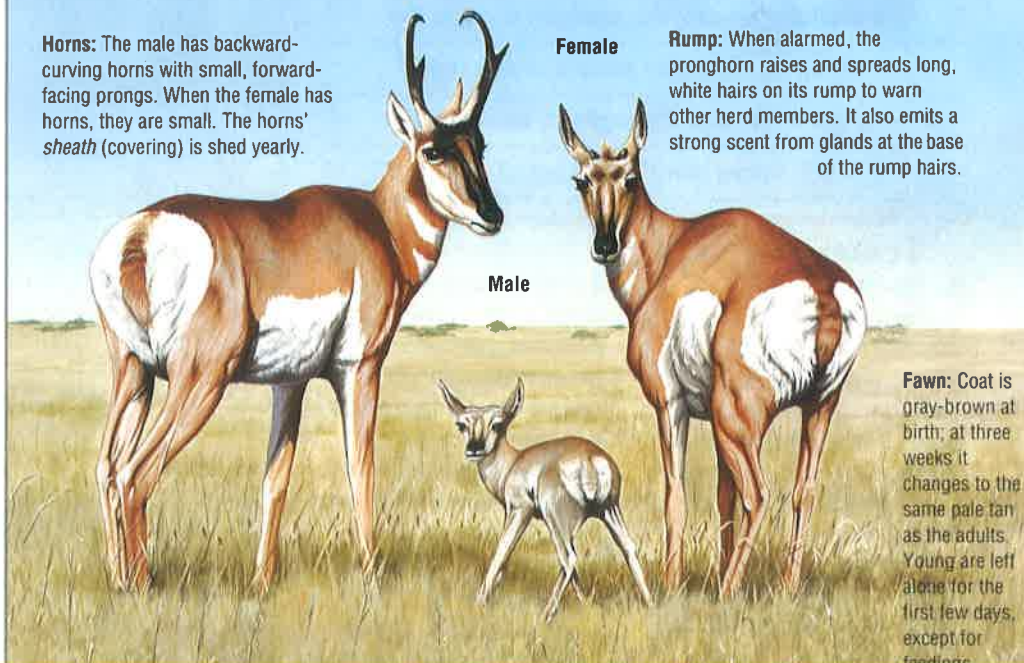
By the 1920s hunting had reduced the pronghorn's population from 35 million to 20,000 animals. Conservationists have now raised the pronghorn's numbers to about 450,000, but some subspecies remain endangered.

FEATURES OF THE PRONGHORN

Horns: The male has backward-curving horns with small, forward-facing prongs. When the female has horns, they are small. The horns' *sheath* (covering) is shed yearly.

Female

Rump: When alarmed, the pronghorn raises and spreads long, white hairs on its rump to warn other herd members. It also emits a strong scent from glands at the base of the rump hairs.



Male

Fawn: Coat is gray-brown at birth; at three weeks it changes to the same pale tan as the adults. Young are left alone for the first few days, except for feedings.



The pronghorn roams in herds across the open grasslands of North America. When it senses a predator nearby, the pronghorn raises the fur on its rump and emits a strong scent to warn the herd. The animals immediately sprint away at full speed.

CHARACTERISTICS

The pronghorn inhabits open grassland and desert from the Canadian border to northern Mexico. Although the animal is not migratory, it covers an area up to 10 miles wide as it searches for food and water. It is most active just before sunset and after sunrise.

The pronghorn is constantly alert for signs of danger and can spot a moving object several miles away. But it may not be

just a few feet away. When it is alarmed, the pronghorn uses its rapid sprinting ability to escape. It can maintain a speed of about 30 miles an hour for two to three miles over even ground.

Both sexes have horns, which grow and are shed yearly. Sometimes the female does not have any horns. Only the male's horns have forward-pointing prongs.

Right: *The pronghorn feeds mainly on grasses and moves frequently in*

BREEDING

Breeding season begins in the spring. Pronghorn herds split into groups, according to age and sex. At three years, young males begin establishing their own breeding territories, which can cover an area of almost two square miles. Older males often occupy the same territories year after year.

The males mark their territories with urine and feces and with a scent produced from glands below the ears. A male with an established territory tries to herd females into his area and keep them there. He promptly drives off rival males.

Competing males first confront
Left: *The pronghorn's large eyes enable it to detect movement several miles away.*

each other with a steady stare. If neither male looks away, the territory holder bellows loudly and may charge the intruder. Most conflicts end with the weaker male backing off. But when two evenly matched males meet, the result is often a violent battle.

Throughout the breeding season, small herds of females wander through the territories of the dominant males. Despite the males' attempts to keep them, the females seldom remain in one male's territory very long.

Once they have mated, females give birth a little over eight months later, usually to twins. The young fawns develop very quickly, and at three weeks old they start feeding on grass and shrubs.

DID YOU KNOW?

- A two-day-old pronghorn can outrun a man. At four days it can outspurt a horse. An adult pronghorn has been recorded at speeds faster than 50 miles an hour.
- The female pronghorn has

only six scent glands, but the male has nine.

- Galloping at full speed, the pronghorn's strides can be more than 25 feet.
- Hunters once attracted pronghorns within range by tying flags to bushes.



Above: *The young suckle for only three weeks.*



Left: *Young fawns are left under cover while the mother feeds.*

PRONGHORN & MAN

When European settlers first arrived, there were about 35 million pronghorns in North America. Many thousands were shot for food and sport. As farming changed the prairies, habitat loss led to a further decline in numbers. By the mid-1920s, fewer than

20,000 pronghorns were left, so conservationists began working to protect the remaining herds. As a result, numbers have risen to 450,000, and a limited amount of hunting is now permitted. No more than 40,000 animals may be killed in a year.

FOOD & FEEDING

Throughout most of the year the pronghorn feeds in herds. During winter a herd may have as many as 1,000 animals. The pronghorn roams desert scrub and flat grasslands to feed on a wide selection of shrubby plants, grasses, and even prickly cacti. To compensate for the wear resulting from the constant chewing of tough plants, the pronghorn's teeth grow continuously throughout its life.

Grasses and other fleshy vegeta-

the pronghorn in spring and summer. In winter, the pronghorn feeds more heavily on shrubby plants. When the ground is covered with snow, the pronghorn digs until it reaches the buried vegetation.

The pronghorn always takes advantage of available water. But in a drought when water is scarce or unavailable, it can survive entirely on the moisture that it gets from the plants that it eats—

ALPINE IBEX

GROUP 1: MAMMALS

ORDER
*Artiodactyla*FAMILY
*Bovidae*GENUS & SPECIES
Capra ibex

The alpine ibex, a wild goat, lives at high altitudes in the Alps and other mountainous regions of central Europe. Once almost hunted

KEY FACTS



SIZES

Shoulder height: 2-2³/₄ ft.
Weight: Males, 165-265 lb.
 Females, 110-140 lb.
Length: Body 4-5 ft. Tail 4¹/₂-6 in.
 Females smaller.



BREEDING

Sexual maturity: 1-2 years.
Mating: Fall and early winter.
Gestation: About 170 days.
No. of young: Usually 1,
 occasionally 2.



LIFESTYLE

Habit: Lives in groups of females
 and young of both sexes.
Diet: Grazes on grass, flowers,
 and low-growing plants. Also
 browses on shrubs and trees.
Lifespan: Between 10-12 years.



RELATED SPECIES

Closely related to the Siberian
 ibex, *Capra sibirica*, and Nubian
 ibex, *C. nubiana*.



Range of the alpine ibex.

DISTRIBUTION

Alps and high mountain regions in central Europe up to 10,000 feet above sea level. The alpine ibex lives at lower altitudes in winter than in summer.

CONSERVATION

Once almost hunted to extinction, today groups flourish in reserves. The alpine ibex is being reintroduced into parts of its natural range.

FEATURES OF THE ALPINE IBEX

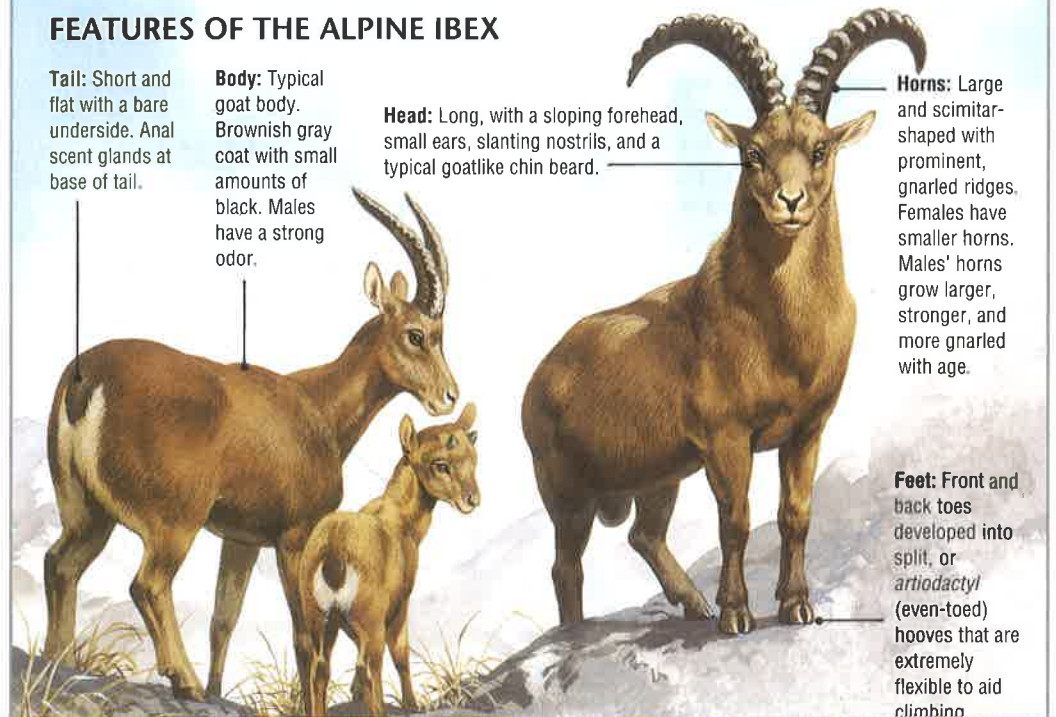
Tail: Short and flat with a bare underside. Anal scent glands at base of tail.

Body: Typical goat body. Brownish gray coat with small amounts of black. Males have a strong odor.

Head: Long, with a sloping forehead, small ears, slanting nostrils, and a typical goatlike chin beard.

Horns: Large and scimitar-shaped with prominent, gnarled ridges. Females have smaller horns. Males' horns grow larger, stronger, and more gnarled with age.

Feet: Front and back toes developed into split, or *artiodactyl* (even-toed) hooves that are extremely flexible to aid climbing.





A swift and nimble climber, the alpine ibex leaps with ease from crags to rocky ledges.

Both male and female alpine ibexes have large, gnarled, scimitar-shaped horns, though the male's are longer and heavier.

HABITS

The alpine ibex lives in large, segregated groups of either adult males or females and their young for most of the year. Males and females only join during breeding season when dominant males form harems of females.

Active during the day, the ibex feeds high up in the mountains and also moves to lower pastures to graze. In summer it lives at higher altitudes than in winter, when lack of food drives it down to more plentiful areas.

When danger threatens, the alpine ibex climbs nimbly up into the rocks to hide. It may

Right: *Good balance allows the*

fight predators such as wolves, lynxes, bears, jackals, and foxes with its large horns when cornered. Its well-developed senses of sight, hearing, and smell help it to avoid danger.



Above: *A male ibex waits six years until his horns are strong enough that he can participate in the rut.*

BREEDING

Mating occurs in fall and early winter. The *rut* (a period of intense mating-related activity among males) lasts about 10 days.

The male alpine ibexes perform fight rituals but do not injure each other; the winners form harems of mature females for breeding. The strongest males with the largest horns gain superiority and can build the largest harems with 12 or more females and one or two old, non-productive males.

FOOD & FEEDING

The alpine ibex feeds throughout the day on shrubs and trees. It often stands on its hind legs to reach leaves, twigs, and tender young shoots.

It also grazes on grass, flowers, and low-growing plants in high alpine meadows. If food is scarce, the ibex moves to lower, wooded valleys at dusk to feed.

Right: *During the rut, males perform ritualized fights, rearing up on their hind legs and clashing horns to show strength.*

After a gestation period of 170 days, one or two *kids* (baby ibexes) are born. The female feeds the kids until the next fall, and the offspring can

graze at one month. The females and their young live together in groups, with young males leaving when they reach maturity at two years.

Left: *In summer, ibexes climb alpine peaks to feed.*



Right: *Two ibexes huddle together during a winter storm.*



DID YOU KNOW?

- The male alpine ibex's horns can grow up to three feet while the larger Siberian ibex's can grow to four and a half feet.
- Like other goats, the male alpine ibex has a strong body odor, and it sprays itself with urine.
- The goat's evolutionary pattern is complex, with some species resembling sheep more than goats in

shape and behavior.

- The most sheeplike goat is the bharal, known as the blue sheep, found in Tibet and western China.
- Since Roman times, the belief that parts of the alpine ibex have special healing powers has led to overhunting in many areas.
- Old male alpine ibexes sometimes grow long hair on the back of the neck.



Above: *A mother and her young*

SEA OTTER

CARD 139



GROUP 1: MAMMALS

ORDER
Carnivora

FAMILY
Mustelidae

GENUS & SPECIES
Enhydra lutris



The sea otter is the most aquatic of the otters, spending almost all of its life at sea. Although seldom found far from land,

KEY FACTS



SIZES

Length: Head and body, 3-4 ft. Tail, 10-15 in.

Weight: Male, 50-100 lb. Female, 30-70 lb.



BREEDING

Sexual maturity: Male, 6-9 years. Female, 4 years.

Breeding season: Any time of year.

Gestation: 6-9 months.

No. of young: 1. Twins rare.



LIFESTYLE

Habit: Coastal, meat eating; pairs only for breeding season.

Diet: Fish, crustaceans, and shellfish.

Lifespan: Up to 20 years.



RELATED SPECIES

The other otter species in the subfamily *Lutrinae* are the river otter, *Lutra lutra*, and the endangered giant otter, *Pteronura brasiliensis*.



Range of the sea otter.

DISTRIBUTION

Coastal and island waters of the north Pacific from California to Alaska in the east and Japan to the Soviet Union in the west.

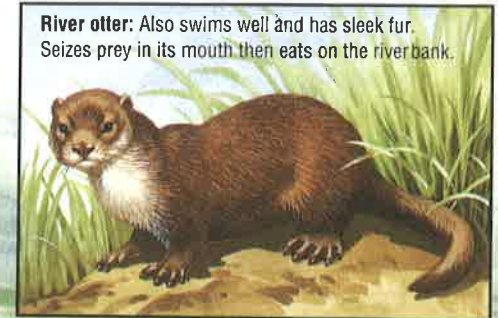
CONSERVATION

Hunted to the point of extinction for its fur, the sea otter was given protection in 1911. Pollution threatens the otter, with oil spills such as the Exxon Valdez disaster wiping out populations and fouling its habitat.

FEATURES OF THE SEA OTTER

Fur: Sleek, thick, and insulating. The sea otter has no fat insulation, so it relies on its fur for warmth. If the hair becomes matted by oil the otter dies from the cold.

River otter: Also swims well and has sleek fur. Seizes prey in its mouth then eats on the river bank.



Feeding: The sea otter eats fish and shellfish off its chest. It uses its clawed forefeet to break open shells and to pass edible parts to

Hind feet: Long and webbed to give the sea otter maximum propulsion



Left: *The sea otter spends much of its life afloat.*

Below: *The sea otter is adept at cracking open tough shells. It brings up a flat ocean stone to lay on its chest and then smashes mussels or clams on it to get at their soft insides.*

The sea otter inhabits the food-rich waters of the north Pacific. With its warm, insulating fur coat, it can swim and fish in the iciest of waters. The beauty of its pelt almost led to the sea otter's extermination by eighteenth- and nineteenth-century fur traders.

HABITAT

The sea otter lives alone in coastal waters. The smallest of sea-living mammals, it spends its entire life at sea only a half mile from the shore. During very rough storms, it may seek shelter in

reefs or rocky coves.

The sea otter stays in shallow coastal water to feed. On land, it walks slowly and awkwardly, lacking the agility and grace it displays in the water.



FOOD & HUNTING

This carnivore feeds on crabs, abalone (a mollusk), sea urchins, and fish. The sea otter eats up to a quarter of its body weight in food each day. A strong and swift swimmer, it propels itself with powerful strokes of its webbed hind feet and undulations of its body. It can dive deep and often feeds

While searching for food, the sea otter remains submerged for more than a minute before surfacing for air. Unlike the river otter that catches its prey in its jaws, the sea otter uses its small, clawed forefeet to seize prey, snatching up slow-moving fish and plucking crustaceans and mollusks from

The otter also eats clams. It may make several dives for a clam, digging a little deeper each time until it dislodges the burrowing creature.

The otter brings up all but the smallest catch to eat on the surface. Swimming on its back, it supports the meal on its chest, often rolling in the water to wash away shells and food waste.

BREEDING

The sea otter's breeding season varies across its range, and offspring are born throughout the year. Mates pair up briefly during the mating season. After mating, males go to group resting grounds while females and young otters share territory.

The gestation period varies because the sea otter can delay an embryo's development to ensure that it is born at a favorable time. The female produces one pup or,

rarely, twins. She only has room to nurse and support a single pup on her chest while swimming on her back.

The young otter, born on a raised reef or in the ocean, quickly swims. It learns to dive at six weeks and begins to eat the same food as the adult otter. The young otter suckles until fully grown at six to eight months.

Below: *The pup remains with its mother in a territory shared with other females.*



Right: *The pup learns about hunting and feeding from its mother. Here, off the Californian coast, a female teaches a pup to crack open a crab.*



DID YOU KNOW?

- A sea otter has been known to dive 318 feet.
- On the surface, a sea otter swims up to one mile per hour—beneath the water it swims six times faster.
- When sleeping the sea otter often covers its eyes with a paw.
- The sea otter is the only sea mammal that has no insulating layer of fat. Instead, it relies on its thick coat to trap warm air that protects it from ice-cold waters.

SEA OTTER & MAN

The sea otter has one of the most valuable coats of any mammal. Hunted intensively from the mid-eighteenth century, fewer than 2,000 sea otters remained worldwide by 1910.

Protective legislation was introduced and sea otter numbers slowly increased to 100,000. Today pollution threatens many of the sea otter's remote habitats. In 1989 oil from the Exxon Valdez tanker killed entire sea otter colonies in Alaska. In some parts of its range, the otter must compete with fishermen for food.

AARDWOLF

CARD 144



GROUP 1: MAMMALS

ORDER
Carnivora

FAMILY
Hyaenidae

GENUS & SPECIES
Proteles cristatus



The aardwolf is the smallest member of the hyena family. It feeds almost exclusively on harvester termites, which it

KEY FACTS



SIZES

Height: About 1 ½ ft. at shoulder.
Length: Head and body, 1 ¼-2 ¼ ft.
Tail: ¾-1 ft.
Weight: 18-26 lb.



BREEDING

Sexual maturity: 2 years.
Breeding season: Varies with location.
Gestation: Usually 60 days.
No. of young: 1-5, usually 2 or 3.



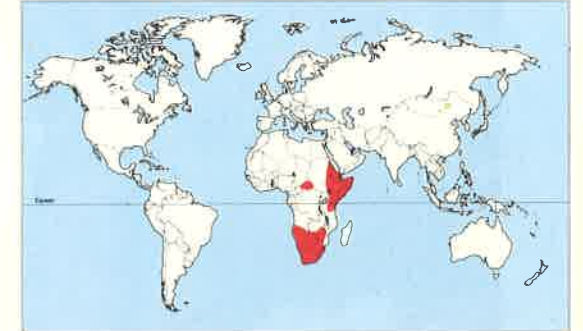
LIFESTYLE

Habit: Lives in den. Nocturnal, solitary.
Diet: Termites and other insect larvae.
Lifespan: Up to 15 years in captivity.



RELATED SPECIES

There are 3 other species in the *Hyaenidae* family: the spotted hyena, *Crocuta crocuta*; the striped hyena, *Hyaena hyaena*; and the brown hyena, *H. brunnea*.



Range of the aardwolf.

DISTRIBUTION

Found in parts of Africa, including southern Egypt, East Africa, Angola, Namibia, Zimbabwe, and South Africa.

CONSERVATION

The aardwolf is hunted for food and for its skin, and because it is mistakenly thought to prey on livestock. In recent years the aardwolf population has declined in some areas.

FEATURES OF THE AARDWOLF

Mane: Long mane runs down neck and back. It is raised to make the animal appear larger when threatened.

Ears: Large and pointed. Acute hearing allows aardwolf to track sound of termites.



Burrow: Often in abandoned den of aardvark, spring hare, or porcupine.

Cubs: Quickly develop adult color and markings. Usually stay with mother until next



The aardwolf is a solitary nighttime creature.

It sleeps in a den taken over from other burrowing

animals during the day. At dusk it comes out

to hunt insects using its highly developed hearing

and its acute sense of smell.

HABITS

The aardwolf lives on the open plains and in the bush country of Africa. It wanders alone within a territory shared with other adults. To mark off its territory, it leaves a musky secretion on rocks and grass.

The territory contains up to a dozen dens, which the aardwolf uses in turn for six weeks at a time. Although the aardwolf can dig its own burrow, it is more likely to enlarge an abandoned den.

Right: The aardwolf does not destroy the colony of the termites it eats. In this way it ensures a continued food supply.



BREEDING

During breeding season, the male aardwolf roams widely in search of females. It often strays into another animal's territory, causing a fight. Each male barks loudly and raises his mane to appear fiercer. A dominant territory holder can usually drive out intruders, but two evenly matched aardwolves may engage in a violent fight.

Breeding usually occurs in fall and spring. Most females mate with the male in their

territory, but they may also breed with intruders.

The female gives birth to two or three cubs in an underground den. The cubs stay in the den for up to two months. At three months they begin to accompany their parents on feeding trips. By about four months they are self-sufficient, but they stay with their mother until the next breeding season, when they leave to establish their own territories.

Left: The aardwolf changes burrows often, in part to avoid detection by predators.

Right: Aardwolf cubs leave the den at three months to learn survival skills.



FOOD & HUNTING

Unlike the hyena, which is a scavenger, the aardwolf eats insects almost exclusively and rarely feeds on small mammals or birds. Its primary food is the harvester termite, but it may eat the larvae and carion beetles on dead animals.

The aardwolf is so dependent on termites that its range and habits closely mirror those of its insect prey. It hunts at night when the termites leave their nest to

Left: An aardwolf feeds from the same termite nest several times.

feed. Because the termite sites are scattered, the aardwolf hunts alone. In cold or wet seasons the night-active harvester termites are hard to find. Then the aardwolf feeds on larger, day-active termites.

The aardwolf can remember the location of various termite nests in its territory. It also tracks termites through the sound they make as they move over hard ground. When it locates its prey, the aardwolf laps the insect up with its long, sticky tongue.

DID YOU KNOW?

- An aardwolf can eat as many as 200,000 termites in one night.
- If an aardwolf is threatened, it may spray its attacker with a strong-smelling fluid. This musky substance is secreted by a

- special anal gland. The aardwolf also uses this substance to mark off its territory.
- The aardwolf often loses its teeth later in life. But it does not need them for its diet of soft-bodied insects.

MANATEE

GROUP 1: MAMMALS

ORDER
Sirenia

FAMILY
Trichechidae

GENUS & SPECIES
Trichechus manatus



One of the most endangered aquatic species, the manatee gives birth every other year at most. It keeps waterways free

KEY FACTS



SIZES
Length: Up to 15 ft. Average 8-13 ft.
Weight: Up to 1,500 lb. Average 300-800 lb.



BREEDING
Sexual maturity: 4-8 years.
Breeding season: Any time of year.
Gestation: 1 year.
No. of young: Usually 1, occasionally twins.
Weaning time: 12-18 months.



LIFESTYLE
Habit: Generally solitary, or small groups. Larger groups form in cool waters.
Diet: Aquatic vegetation.
Lifespan: 30 years or more.



RELATED SPECIES
There are 3 related species: the West Indian manatee, the Amazonian manatee, and the West African manatee.



Range of the manatee.

DISTRIBUTION

Tropical and subtropical waters of southwestern United States as far west as Texas. Also off West Indies and along coast of northern South America.

CONSERVATION

Listed as vulnerable by the World Conservation Union, it has legal protection in most countries, but this protection is not always enforced.

FEATURES OF THE MANATEE

Forelimbs: Modified into flippers. Young use forelimbs only to swim; adults use them to steer and help swim against the current. Tips can be turned inward and used to walk in shallow water.

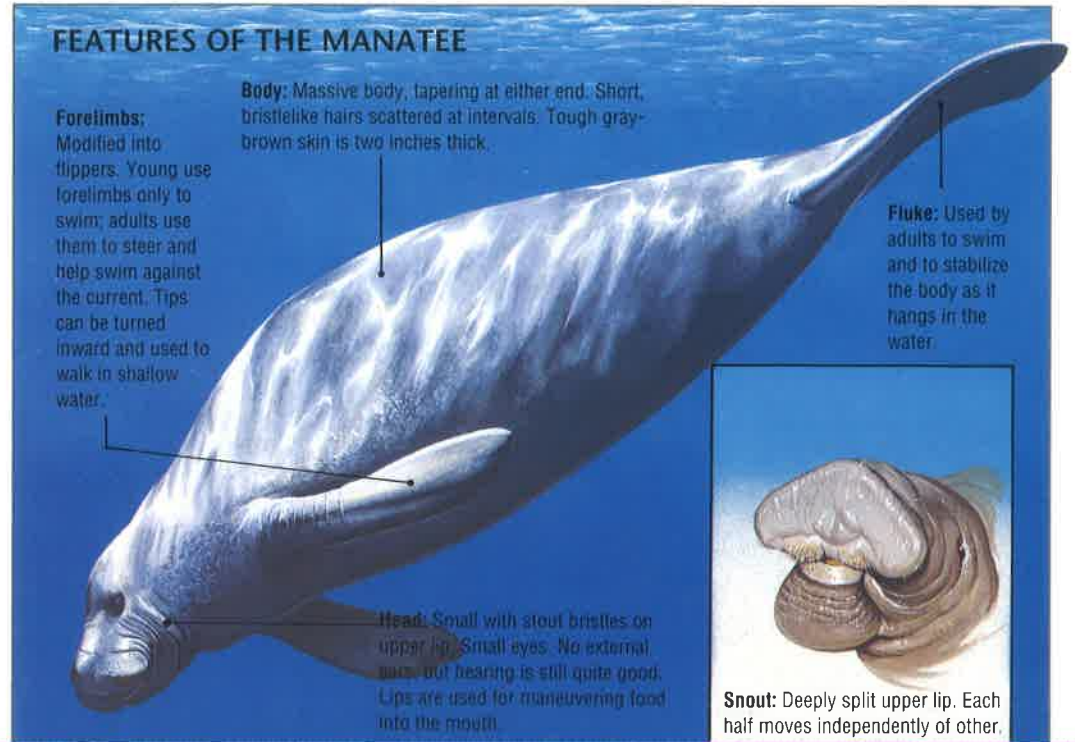
Body: Massive body, tapering at either end. Short, bristlelike hairs scattered at intervals. Tough gray-brown skin is two inches thick.

Fluke: Used by adults to swim and to stabilize the body as it hangs in the water.

Head: Small with stout bristles on upper lip. Small eyes. No external ears, but hearing is still quite good. Lips are used for maneuvering food into the mouth.



Snout: Deeply split upper lip. Each half moves independently of other.



Exploited for its meat and hide

since the eighteenth century, the harmless

manatee is now a protected species.

Certain parts of the world value its

voracious appetite for underwater plants,

which keeps vital waterways clear of

choking vegetation.



FOOD & FEEDING

As an *herbivore*, the manatee eats only aquatic vegetation. It feeds and rests in short periods throughout the day. It uses its dextrous forelimbs or large, deeply split upper lip to put vegetation in its mouth.

The manatee's teeth wear down very quickly from sea grass and the large amounts of sand that it takes in with each mouthful. New teeth constantly grow at the back of the mouth and move forward at a rate of .04 inch a month, pushing out worn front teeth at regular intervals.

Left: *The manatee swims well, and it relies completely on its aquatic environment.*

Right: *The manatee uses its forelimbs like hands and arms to gather its food.*

The manatee needs large amounts of food to maintain its great weight. It eats 8 to 15 percent of its own body weight each day. Its dense



bulk keeps it steady in the water as it feeds. The manatee usually feeds while submerged, but it sometimes rises above the water.

MANATEE & MAN

The manatee has no natural enemies. It is man who has brought the manatee to its current vulnerable state. The manatee has long been hunted for its meat, hide, and oil. Between 1838 and 1942, several thousand manatee hides and countless cans of meat were exported from Brazil.

More recently, pollution and loss of habitat through the damming of waterways have threatened the manatee's existence.

Manatees are slow-moving, inquisitive animals, and a great number of them have sustained injury or have died after being caught in the propellers of high-speed boats.

HABITS

The manatee favors muddy bays, lagoons, slow rivers, and estuaries. It prefers water temperatures of 68° F or above, since it cannot survive in temperatures below 46° F. It migrates in the winter to warmer spots. The Amazonian manatee lives only in fresh water, but the other two species can survive in both fresh and saltwater.

The manatee occurs singly

or in small family groups, but during tropical cold spells large numbers gather around heated water from power plants or the warm outflow of a spring. They float vertically in the water during cold mornings with just their snouts showing. As the sun gets hotter, more of their bodies rise above the surface.

In large groups, manatees have been observed pressing

their big snouts together as if kissing, in what is thought to be a greeting gesture.

The manatee is a mammal, so it comes to the water's surface to breathe. It can stay submerged for up to 15 minutes but usually surfaces at 5- to 10-minute intervals. It cannot survive out of water because it can't move, and its body weight makes it impossible to breathe without water support.

BREEDING

The manatee reproduces slowly. The female gives birth to a single calf every other year at most.

Groups of males gather around a female ready to mate, nuzzling her and

attempting to push rivals away. She may mate with more than one male.

More than a year later, she gives birth underwater, immediately bringing the calf up to the surface on her

back to take its first breath. She suckles the calf for 12 to 18 months, feeding it vegetation as well.

Below: *"Mouthing" confirms the strong bond between mothers and calves.*

DID YOU KNOW?

- Spanish colonists in the West Indies named the manatee from *mano*, meaning "hand" and *tener*, meaning "to hold."
- Known as sea cows, manatees and the related dugong—members of the Sirenian

- family—are the only mammals that eat sea vegetation.
- The manatee's intestines measure more than 150 feet long.
- The manatee uses its extremely sensitive mouth

- when searching for food and when communicating and bonding with other manatees, which is called mouthing.
- Nearly all mammals have seven neck vertebrae; the manatee has only six.



LONG-NOSED BANDICOOT

GROUP 1: MAMMALS

ORDER
*Marsupialia*FAMILY
*Peramelidae*GENUS
Perameles

Long-nosed bandicoots look like a cross between a small kangaroo and a shrew. These insect-eating marsupials are found only

KEY FACTS



SIZES

Length: Head and body, 8-17 in.
Tail, 3½ - 7 in.
Weight: About 6½ lb. Male larger than female.



BREEDING

Sexual maturity: Possibly 3 months but usually later.
Mating season: Any month.
Gestation: About 12 days.
No. of young: 1-7, usually 2-4.



LIFESTYLE

Habit: Solitary; feeds at night.
Diet: Mainly insects and grubs but also roots, tubers, and small mammals.
Lifespan: Not known exactly but probably 3-5 years.



RELATED SPECIES

There are 19 bandicoot species in 8 genera. The family *Peramelidae* has 7 genera.



Range of long-nosed bandicoots.

DISTRIBUTION

Found in an isolated area in central Australia and around the Australian coast. Also found throughout Tasmania.

CONSERVATION

Long-nosed bandicoots are protected by law in Australia. They are not as endangered as many of the other bandicoot species.

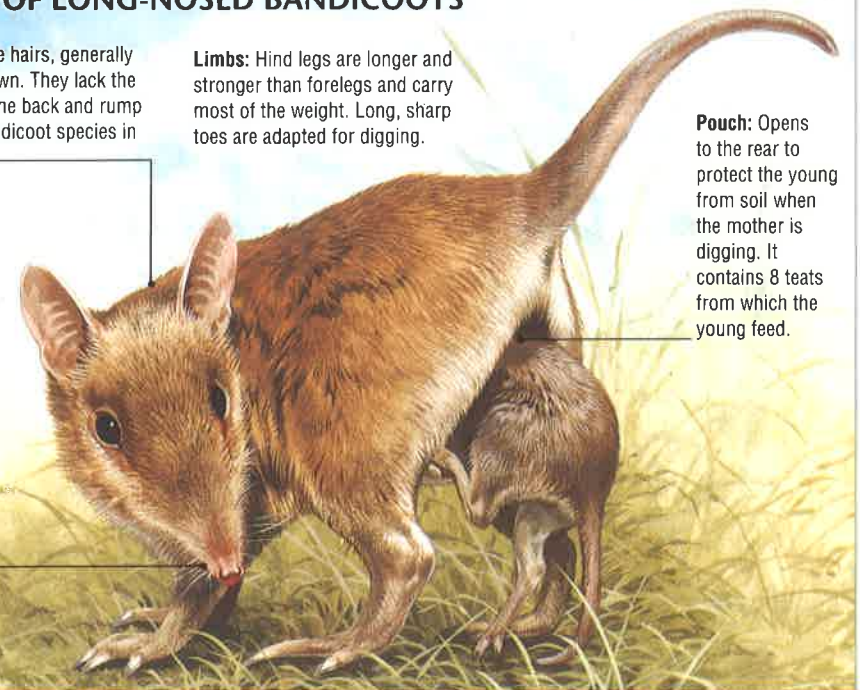
FEATURES OF LONG-NOSED BANDICOOTS

Coat: Sleek, coarse hairs, generally a light grayish brown. They lack the darker stripes on the back and rump of all the other bandicoot species in the family.

Limbs: Hind legs are longer and stronger than forelegs and carry most of the weight. Long, sharp toes are adapted for digging.

Pouch: Opens to the rear to protect the young from soil when the mother is digging. It contains 8 teats from which the young feed.

Nose: Long and slender, tapering to a point. Adapted for rooting in soil, rotting wood, or crevices.





Long-nosed bandicoots are odd-looking members of the marsupial family. They have a trunklike snout, powerful hind legs, and a pouch that opens to the rear. They feed at night, darting quickly here and there to avoid detection by their many predators.

Left: Using their powerful hind legs, bandicoots run with sudden bursts of speed and change direction quickly to outmaneuver predators.



Right: Bandicoots hunt and feed at night. They have good hearing and excellent night vision.

ENEMIES

Bandicoots are prey to many predators, including dingoes, snakes, and foxes. The Aborigines hunt them for food, and farmers and gardeners often kill them because they damage crops and gardens as they dig for insects.

Even though bandicoots have a high rate of reproduction, many species are threatened with extinction and some are already extinct. The main threat comes from humans, who have destroyed bandicoots' habitats through cultivation. Another problem is the introduction of rabbits, whose grazing pattern alters the land and renders it unsuitable for bandicoots.

HABITAT

The four species of long-nosed bandicoot inhabit open plains, cleared grassland, and wooded areas along the coasts of Australia and in Tasmania. They also live in undergrowth and even in drainpipes near towns.

Both the males and the females have home ranges. The male's range is larger than

the female's, and he often has to defend it from invading males, sometimes fighting with teeth and claws.

Long-nosed bandicoots are active mainly at night and sleep most of the day in a nest. They build their nests from grasses or sticks in a sheltered spot on the ground.

DID YOU KNOW?

- The name *bandicoot* derives from a word in an Indian dialect meaning "pig rat." It was originally applied to a rodent of the genus *Bandicota* found in India and Sri Lanka.
- Long-nosed bandicoots are among the few bandi-

coots that make a noise. They emit a high-pitched call if disturbed.

- Bandicoot species range in size from one foot to more than two feet long.
- Bandicoots have the highest rate of reproduction among marsupials.

BREEDING

Bandicoots are solitary animals and come together only to mate. They can breed at any time of year. During his nightly forages for food, the male searches for females that are ready to mate.

The gestation period is about 12 days. Newborns crawl into the mother's pouch

and remain attached to her by a placental cord that nourishes them from her uterus.

Long-nosed bandicoots' pouches open backward, unlike kangaroos', which open to the front. The young stay in the pouch for about seven weeks. After another week, they are weaned and they leave.

FOOD & FEEDING

Long-nosed bandicoots eat mostly insects and larvae. They use their powerful claws to dig prey out of the ground and their long snouts to root prey out of crevices. Usually they find insects in the top four inches of soil. After a nightly forage, the area may

be dotted with shallow holes. Besides insects, long-nosed bandicoots dig and eat roots and tubers. They also kill small rodents such as mice. After catching an animal, a bandicoot rapidly kneads it into a pulp with its forefeet before eating it.

Left: Having caught an insect, a bandicoot crushes it with small,

Right: A bandicoot uses its toes and snout to dig insects and roots



GAUR

GROUP 1: MAMMALS

ORDER
Artiodactyla

FAMILY
Bovidae

GENUS & SPECIES
Bos gaurus



With its rich dark coat and long white socks, the gaur is the largest and most impressive of all the wild cattle. This rare animal lives

KEY FACTS



SIZES

Length: 8-10 ft.

Height: About 5 ft.

Horn length: Male, up to 3½ ft.

Weight: Female, 1,500 lb. Male, 2,100 lbs.



BREEDING

Sexual maturity: Female, 3 years.

Male, much later.

Breeding season: Summer.

Gestation: 9 months.

No. of young: 1.



LIFESTYLE

Habit: Forms small herds.

Diet: Grass, herbs, and shrubs.

Calls: Sharp, loud snort for alarm.

Long, loud bellow for bull's mating call.



RELATED SPECIES

The gayal is a domesticated form of the gaur. It is slightly smaller and is highly valued for the quality of its meat and hide.



Range of the gaur.

DISTRIBUTION

Scattered herds on the Indian peninsula, Myanmar, Nepal, western Malaysia, Cambodia, Laos, Thailand, and Vietnam.

CONSERVATION

The gaur is threatened by a reduction in its upland forest habitat. There have probably never been large numbers of gaur because their habitat requirements are very specific.

FEATURES OF THE GAUR

Forehead: Raised ridge of bone between horns. Lowered against opponent in threat display.

Dorsal hump: Flexed and displayed by the bull to impress a rival with his bulk. In this way males can establish dominance without fighting.

Horns: 2 to 3½ feet long, curving upward and inward. Horns of old bulls are sometimes shorter because they are broken or have worn down.

Dewlap: Loose folds of skin that give off body heat and cool the animal.

