

AFRICAN WILD DOG

CARD 101

GROUP 1: MAMMALS

ORDER
Carnivora

FAMILY
Canidae

GENUS & SPECIES
Lycaon pictus



The African wild dog, once known as the Cape hunting dog, is unique among the dog family for its social behavior. Young, old, and injured dogs are all fed by the pack after a successful hunt.

KEY FACTS



SIZES
Length: 30-45 in. Tail, 15 in.
Weight: 37-80 lb.



BREEDING
Sexual maturity: 1 year.
Mating: Year-round in East Africa; spring and early summer in Zambia, South Africa, and Serengeti.
Gestation: 72 days.
No. of young: Usually 6-8.



LIFESTYLE
Habit: Lives in packs of 6-20. Nomadic most of the year.
Diet: Gazelles, zebra foals, warthogs, elands, young wildebeests, and domestic animals.
Lifespan: Average 4 years in the wild, 10 years in captivity.



RELATED SPECIES
Related to all species of *Canis*, including the wolf and the domestic dog.



Range of the African wild dog.

DISTRIBUTION

Throughout Africa from Sudan to the Cape of Good Hope, on grassy steppes and in savannah country, but not in dense forests.

CONSERVATION

In areas where hunting is permitted the wild dog is becoming increasingly rare. Still, in protected areas its role in regulating the antelope population is considered beneficial.

CALLS OF THE AFRICAN WILD DOG

In addition to barks and howls, the wild dog has developed special calls for particular occasions. For example, when an adult dog is separated from the pack, it repeats a bell-like call for approximately a minute. It then listens, sitting perfectly still. The rest of the pack recognizes the sound and quickly comes to find the lost dog.



A pup (with characteristically large ears) makes a soft, high-pitched moaning sound.



The African wild dog is a slender animal about the size of a collie. It has a powerful skull equipped with strong jaws and sharp teeth. Its brightly colored coat is a mixture of black, yellow, and white, and no two wild dogs have the same coat pattern.

HABITS

A pack of African wild dogs has between 6 to 20 members. The pack has no single leader. Instead, there is a clear division of labor, with some dogs guarding the pups while the rest are hunting. The dogs may also take turns leading the hunt.

Wild dogs spend most of the day in their dens or resting together in the shade. In the early morning and evening,

pack members engage in mock fighting before going hunting.

Wild dogs are nomadic for nine months of the year. They remain in one place only long enough to breed and raise the pups. During this time the entire pack defends its territory and feeds the young. At three months the pups are old enough to hunt with the pack.

DID YOU KNOW?

- The wild dogs' brightly colored coats help them identify each other during a hunt.
- During a hunt an adult wild dog runs at 35 miles an hour for several miles.
- Wild dogs rarely dig their own dens. Instead, they use holes abandoned by warthogs or other large burrowing animals.
- A pack of 20 wild dogs kills and eats nearly 90 pounds of prey every day.
- Wild dogs rarely drink water; they usually get enough liquid from the blood and body fluids of their prey.
- It was reported that the males of a pack with nine pups reared the pups after the only female in the pack died.

FOOD & HUNTING

Once they spot prey, wild dogs charge directly into the herd and attack an animal. They kill their prey quickly once they have pulled it to the ground. A hunt usually lasts less than five minutes but may cover two miles.

In East Africa the dogs'

primary prey is Thomson's gazelle, but they also hunt Grant's gazelle. When hunting wildebeest and zebra the dogs cause a herd to panic so that they can isolate one or more of the young. But the dogs do not attack adult zebras, which can kill a dog

with one kick. In South Africa the wild dogs also eat domestic cattle, warthogs, and large antelope.

The dogs feed together at the kill site before returning to the rest of the pack, where they regurgitate meat for the other dogs.



Left: A pack of hungry wild dogs attacks prey from behind, pulling it to the ground and killing it instantly.

BREEDING

Wild dogs breed year-round in East Africa, but in other parts of their range they usually breed in the first half of the year. A female in heat marks an area with her urine. The male that has selected her for a mate urinates in the same places.

A few days after the pups are born, the female carries them around to the other adults in the pack which take turns licking them.

Newborn pups are black and have scattered white spots. They develop their unique adult coloring when they are six to seven weeks old. At two to three weeks of age, the pups begin to eat small amounts of regurgitated meat. They are fully weaned at 12 weeks of age.



Above: Females suckle any hungry pup that approaches them.



Left: After the hunt, adult dogs regurgitate meat for the young.

LEAST WEASEL

CARD 102

GROUP 1: MAMMALS



ORDER
Carnivora

FAMILY
Mustelidae

GENUS & SPECIES
Mustela nivalis



The least weasel is one of the smallest carnivores. Despite its small size, it fiercely attacks and kills animals much larger than itself.

KEY FACTS



SIZES

Length: 8-11 in.
Height: 2-3 in. to shoulder.
Weight: Male, up to 4 oz. Female, up to 2 oz.



BREEDING

Sexual maturity: Just under 1 year.
Mating: Spring, usually April.
Gestation: 34-37 days.
Litter size: 3-8, usually 4-6.



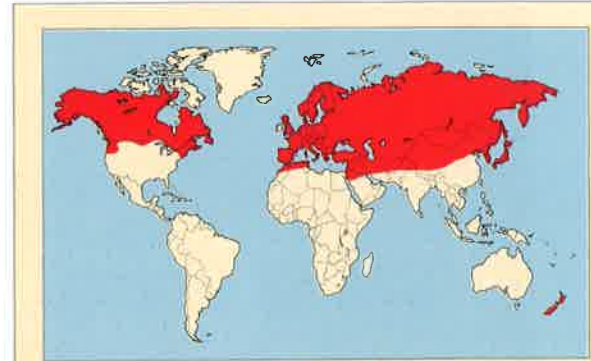
LIFESTYLE

Habit: Ferocious. Hunts mainly at night. Generally solitary.
Diet: Mainly mice, but also rats, moles, small birds, birds' eggs, rabbits, and occasionally poultry.
Lifespan: 1-2 years in the wild. Up to 10 years in captivity.



RELATED SPECIES

Closely related to the skunk and the otter.



Range of the least weasel.

DISTRIBUTION

Found widely in Europe. Also seen in much of Asia, in North Africa, and in much of North America. Introduced to New Zealand.

CONSERVATION

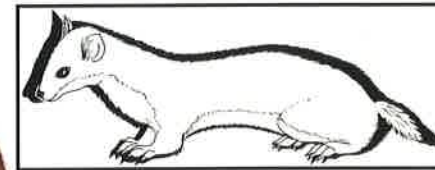
Although least weasels are not protected, they are under no threat as a species.

FEATURES OF THE LEAST WEASEL

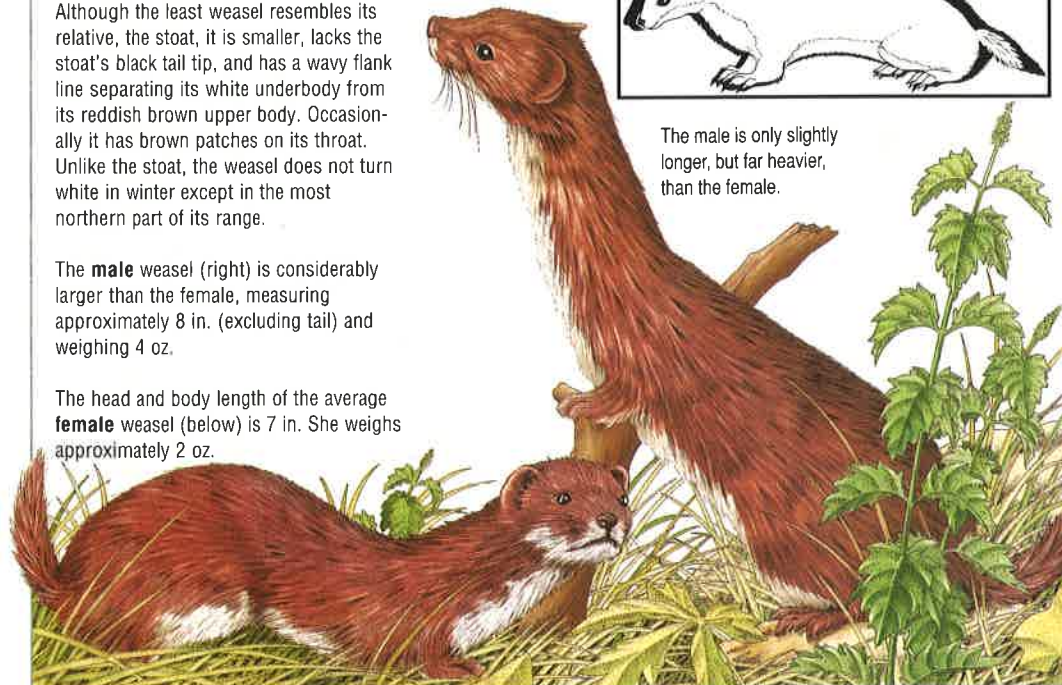
Although the least weasel resembles its relative, the stoat, it is smaller, lacks the stoat's black tail tip, and has a wavy flank line separating its white underbody from its reddish brown upper body. Occasionally it has brown patches on its throat. Unlike the stoat, the weasel does not turn white in winter except in the most northern part of its range.

The **male** weasel (right) is considerably larger than the female, measuring approximately 8 in. (excluding tail) and weighing 4 oz.

The head and body length of the average **female** weasel (below) is 7 in. She weighs approximately 2 oz.



The male is only slightly longer, but far heavier, than the female.





FOOD & HUNTING

The least weasel's preferred food is mice. Where mice thrive, there is likely to be a large population of weasels. Weasels do not breed when the fluctuating mice populations are low.

Squirrels, rats, and rabbits are also common prey. A weasel often kills many more small animals than it can eat at one time.

Weasels are good swimmers and hunt water mice. They also climb trees and search through bushes to find birds' nests from which they eat the eggs and the young. They hunt mainly at night and locate prey with their sense of smell. They hunt primarily among bushes, stone walls, and open fields.



Above: A weasel raids the nest of a harvest mouse.



Right: The weasel attacks and eats animals much larger than itself, such as rabbits.

The weasel is small enough

to follow its favorite prey—mice—

into their underground burrows.

It kills them with a sharp bite to the back

of the neck and uses their burrows

for temporary shelter.

DID YOU KNOW?

- Female least weasels are so much smaller than males that they were once thought to be a different species.
- A weasel's burrow can be recognized by the remains of its prey—usually feet and tails—found at the entrance.

- Weasels vary in color from light tan to a deep rust color. But most have brown spots or blotches on their white underbody.
- The fluid secreted by a weasel's anal scent glands is similar to that of a skunk.

BREEDING

The only time males and females come together is in the spring to mate. The litter, born five weeks later, ranges in number from three to eight young.

The young are weaned at four to five weeks, but the

mother continues to hunt and provide for them until they are two months old.

The family group breaks up one to three weeks later.

Below: A young weasel is fully independent by the time it reaches 12 weeks.

HABITS

Least weasels can be found wherever mice and other rodents are plentiful. They live in a variety of habitats including cultivated land, woodland, and mountains.

Weasels live and hunt within a defined territory. The size of the territory depends on the type of habitat and the food supply. A male's territory may cover up to 10 acres. A female has a much smaller territory

that may overlap with those of other females. Individual territories are marked with the same strong-smelling secretions from the anal scent glands that are released during the breeding season.

The female remains in her territory throughout the year, but during the spring mating season, males may travel long distances outside their normal range to mate.



NATUREWATCH

Although weasels are not particularly frightened by humans, you will have a better chance of spotting one if you wear dark clothing that blends in with the surroundings. Keep as quiet and still as possible, and position yourself downwind of the weasel so that it will not smell you.

Weasels can be seen among

hedges and in long grass, especially in places where there are many mice and other rodents. You may also see weasels standing on their hind legs to investigate the surroundings.

If a weasel drops its prey and runs after it spots you, wait a few minutes until it returns to retrieve its food.



PERE DAVID'S DEER

CARD 103



GROUP 1: MAMMALS

ORDER
Artiodactyla

FAMILY
Cervidae

GENUS & SPECIES
Elaphurus davidianus



Père David's deer is named after a Frenchman, Père Armand David. He shipped several of these deer from China to Europe in the late nineteenth century and saved the species from extinction.

KEY FACTS



SIZES
Height to shoulder: Male, almost 4 ft. Female smaller.
Weight: Male, up to 540 lbs. Female about 300 lbs.
Antlers: Up to 2½ ft. long, on male only.



BREEDING
Sexual maturity: Female, 1-2 years. Male, 3-4 years.
Mating: June to August.
Gestation: About 36 weeks.
No. of young: 1-2.



LIFESTYLE
Habit: Sociable; lives in herds. Nondominant stags gather in groups during mating season.
Diet: Primarily grass; also leaves and water plants.
Lifespan: About 20 years.



RELATED SPECIES
 Related to many other species of deer, including the red deer and the fallow deer.



Original range of Père David's deer.

DISTRIBUTION

Formerly found in the swampy plains of eastern China, Père David's deer is now found only in captivity in wildlife parks and zoos throughout the world.

CONSERVATION

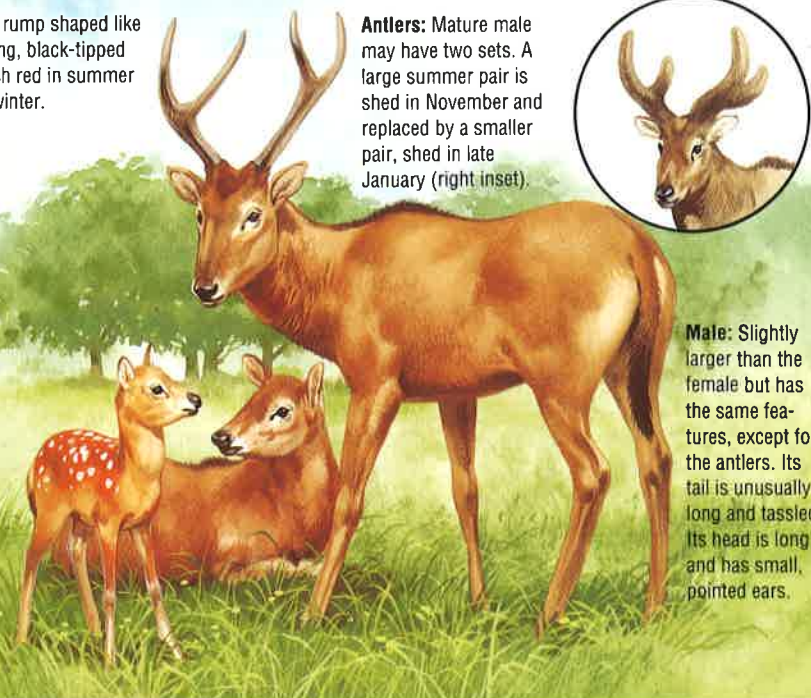
There are now more than 600 individual deer in captivity throughout the world, and the species is no longer in danger of extinction.

FEATURES OF PERE DAVID'S DEER

Body: Large, with a rump shaped like a donkey's and a long, black-tipped tail. Coat is brownish red in summer and grayish tan in winter.

Female: Does not have antlers, like the females of most other species of deer. Her neck is more slender than the male's.

Fawn: Able to stand and walk soon after birth. Coat is either beige or a yellowish brown with lighter spots.



Antlers: Mature male may have two sets. A large summer pair is shed in November and replaced by a smaller pair, shed in late January (right inset).

Male: Slightly larger than the female but has the same features, except for the antlers. Its tail is unusually long and tassled. Its head is long and has small, pointed ears.



Père David's deer is one of the largest species of deer. The male's antlers, which may be shed twice a year, are unusual. Their points sweep backward, while the antlers of other species either sweep forward or point straight up. Today this rare animal can be seen only in zoos and wildlife parks.

BREEDING

The mating season, from June to August, is called the *rut*. Mature females gather in a group called a *harem*, which is dominated by a mature male, or *stag*.

Ownership of a harem is often disputed among several stags and is settled by contests, both mock and real. When fighting in earnest, adult males use their antlers

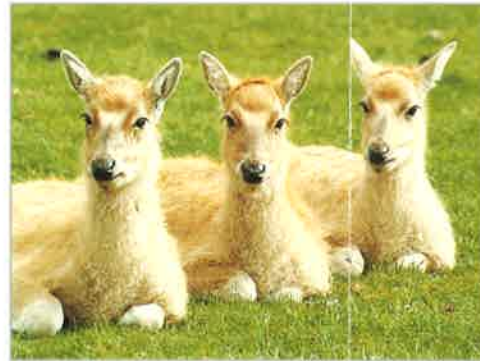
Left: *The hooves of Père David's deer make an odd cracking sound as it walks.*

and teeth as weapons and may stand on their hind legs to box with their hooves. Possession of the harem may change several times during the mating season.

After a gestation period of about 36 weeks, the female gives birth to one or two fawns, which are able to stand up and walk almost from birth. They are nursed by their mother for six or seven weeks and remain with her for one to two years.



Above right: *A family group stays together all year except during the mating season.*



Left: *Six-week-old fawns still have the thick fleece of the newborn.*

DID YOU KNOW?

- In 1957 four calves from the London Zoo traveled with their keeper to the Beijing Zoo to begin a herd in the deer's native land.
- Père David's deer may have become extinct in the wild as early as the second century B.C., when its natural swampy habitat became a rice-growing area.
- The Chinese called Père David's deer *ssu-pu-hsiang* ("the four unlikes") because they thought it had a stag's antlers, a camel's neck, a cow's hooves, and a donkey's tail.

ORIGINS

The last wild specimens of this deer died out centuries ago, but small herds were kept by the Chinese emperors in hunting parks. In 1865 the French missionary Père Armand David discovered the only surviving herd in the walled imperial hunting park just outside Beijing.

With the help of foreign diplomats, Père David arranged for live specimens to be sent to several European zoos before he left China in 1874. By the 1920s these animals were the only surviving members of the

species. But they did not breed successfully until the duke of Bedford collected the 18 survivors together in one herd at Woburn Abbey, a wildlife park in England. The conditions there suited the deer, and by 1939 the herd had grown to over 250.

During World War II some of the herd were transferred to England's Whipsnade Zoo to reduce the risk of extinction by bombing or disease. Calves have since been sent to zoos around the world. The present population is about 600 worldwide.



Left: *Père David's deer may wade into a stream to bathe.*

HABITS

Male, female, and young Père David's deer live together in herds, but the males avoid the females for two months before and after the rut.

Unlike many other species of deer, Père David's deer likes water. It is believed that it originally lived in the swamplands of eastern China, where

it became used to watery conditions. It is a strong swimmer and spends long periods standing shoulder-deep in water during warm weather. The male deer likes to wallow in wet mud at the edges of lakes and ponds, using its hooves to flick mud and grass onto its back.

FOOD & FEEDING

Père David's deer is mainly a grazing animal, preferring lush grassland. It will also eat

young, tender shoots and leaves, depending on the plants that are available. In the summer it will eat green water plants.

COMMON ECHIDNA

CARD 104

GROUP 1: MAMMALS



ORDER
Monotremata

FAMILY
Tachyglossidae

GENUS & SPECIES
Tachyglossus aculeatus



The echidna is a small, spiny, barrel-shaped animal that resembles a pale brown porcupine. It is one of only two types of mammal that reproduce by laying eggs.

KEY FACTS



SIZES

Length: Head and body, 14-20 in.
Tail, 3 in.

Length of spines: 2 in.
Weight: 5-13 lb. Male is 25 percent larger than female.



BREEDING

Sexual maturity: 1 year.
Mating: June to August.
Gestation: 14 days to egg laying; egg hatches after 10 days. Young leaves pouch after 6-8 weeks.
No. of young: 1.



LIFESTYLE

Habit: Solitary except in breeding season. Mainly active at dawn and dusk.
Diet: Ants, termites, and other small insects.
Lifespan: Can be over 50 years.



RELATED SPECIES

Long-nosed or long-beaked echidna, *Zaglossus bruijini*, found in New Guinea.



Range of the common echidna.

DISTRIBUTION

Found widely throughout the less barren parts of Australia.

CONSERVATION

Because echidnas have no economic value and are not considered to be pests, they are not hunted extensively by man. Because they have few natural enemies, they are common and widespread.

FEATURES OF THE COMMON ECHIDNA

All four feet have powerful claws for digging.



The second toe of each hind foot has a special long, curved claw used for scratching between the spines.



The echidna digs in the earth, pulling food into its mouth with its sticky tongue.

Mouth and nostrils are at the tip of a hairless snout.



Spines grow through dense fur coat, covering back and sides.



The common echidna is also known as the "spiny anteater." It is found mainly in sheltered grassy and woodland areas that have soft enough soil for the animal to dig for prey or burrow into the ground.

FOOD & HUNTING

The echidna is a *carnivore*, or meat eater. But it has no jaw muscles, so it cannot open its jaws. Instead, it draws food into the tiny circular opening at the end of its snout with its long tongue. The tongue can extend as much as seven inches from the tip of the snout. Since the echidna has no teeth, it grinds prey between the ridges at the base of its tongue and palate.

The echidna locates its prey chiefly by smell. It turns over the soil with its paws to search for ants, termites, and any other insects small enough to be eaten. The echidna is so strong that it can turn over

stones more than twice its own weight.

In August and September the echidna digs for female meat ants. These female ants are especially fat at this time of year (spring in the southern hemisphere), and the echidna is willing to risk the meat ants' painful sting.

When the echidna is in an inactive state (called *torpor*), it is able to go without food for as long as a month.

Right: Using the claws on all four feet, an echidna burrows into a termite mound to feed on the insects.



HABITS

The solitary echidna occupies a territory that varies in size, depending on the abundance of food in the area. In moist forest regions, where food is plentiful, an echidna may wander over an area as large as 125 acres.

The echidna does not use any one shelter regularly. Instead, it rests in hollow logs,

under thick vegetation, or among piles of rocks. During cool weather conditions, the echidna is active at dawn and dusk. During hot summer weather it emerges only at night; in cold weather, it spends the entire day outside. Although the echidna does not hibernate, it remains inactive when the

weather is very wet.

The echidna's only enemies are man and the *dingo* (Australian wild dog). If either disturbs the echidna, it burrows vertically into the ground. It pushes the soil away from underneath itself with all four feet at once. The echidna stops digging only when more than half of its body is buried.



Left: An echidna burrows to escape predators. The echidna's spines make it difficult for a predator to pry the echidna loose without injuring itself.

DID YOU KNOW?

- The echidna and the duckbilled platypus are the only mammals that reproduce by laying eggs.
- The echidna was named in error: its name should have been *echinos*—Greek for "hedgehog." The Greek word *echidna* actually means poisonous snake.
- In Tasmania's cool climate the echidna's fur grows so long for warmth that it covers the animal's spines.
- The echidna is one of the few mammals that has a life expectancy of 50 years or more. Man is another such mammal.
- The male echidna has a non-functional venom gland and claw on the heel of each hind foot.

BREEDING

The female echidna leaves a scent trail on the ground when she is ready to mate. While foraging for food, the male detects and follows her scent. Sometimes a single female is followed by four or five males at once.

Two weeks after mating the female lies on her back and lays a single egg. She

stretches her body so that the egg drops into the pouch on her abdomen. After 7 to 10 days the tiny young breaks out of the leathery shell, using the specialized egg tooth on the tip of its snout.

The hatchling is only half an inch long. It stays in its mother's pouch, feeding on her milk for eight weeks.



Left: At eight weeks of age the young echidna is four inches long, and its spines have begun to develop. The mother digs it a separate burrow that she visits daily for six months to suckle the young.

WOLVERINE

CARD 105

GROUP 1: MAMMALS

ORDER
Carnivora

FAMILY
Mustelidae

GENUS & SPECIES
Gulo gulo



The wolverine is a rare animal that lives in the remote Arctic and sub-Arctic regions of the world, where it preys on small mammals or scavenges on the kills of others.

KEY FACTS



SIZES

Length: Males, 3 ft. Females, smaller.

Weight: Males average 30 lb. Females, 20 lb.



BREEDING

Sexual maturity: 1-2 years.

Mating season: April to August.

Gestation: About 9 months, including period of delayed implantation.

No. of young: Up to 4 kittens.



LIFESTYLE

Habit: Solitary.

Diet: Any mammal. Scavenges food. Also eats some berries.

Lifespan: Up to 13 years.



RELATED SPECIES

There are two subspecies: the European and North American wolverines.



Range of the wolverine.

DISTRIBUTION

The Arctic, sub-Arctic and *taiga* (forests of cone-bearing trees) regions of Eurasia and North America.

CONSERVATION

Although it is not yet an endangered species, the wolverine's numbers are declining, especially near human populations. Hunters shoot it for sport, for its fur, and because it breaks into buildings to steal food.

SPECIAL ADAPTATIONS OF THE WOLVERINE

Coat: Dense, thick, enabling the wolverine to live in harsh climates.

The wolverine chases other animals away from potential food.

Head: Long and tapering. Long, sharp teeth and powerful jaws enable it to crush the bones of its prey.

Feet: Large to support weight on soft snow. Five long, sharp claws on each foot.

The wolverine's name suggest that it is a species of wolf, but its appearance indicates that it could be a member of the bear family. In fact, the wolverine is actually the largest member of the weasel family. Its scientific name means "glutton" because of its habit of attacking any prey it happens to meet.



Left: The wolverine pounces on prey from trees and rocks.

HABITS

The wolverine is the fiercest member of the weasel family. Its thick, dense coat of brown fur protects it from the hostile climate.

A solitary animal, the wolverine will defend its territory against any other wolverine that dares to encroach on its space. The wolverine warns others of its presence by discharging a strong-smelling

fluid, called musk, from an anal gland under its tail. The wolverine has a highly developed sense of smell, which makes it a good scavenger. It is also a good climber and often rests in trees. Because its range is so large, the wolverine does not have a single nest site, but several, scattered throughout its range.

DID YOU KNOW?

- The wolverine is said to be strong enough to drag an animal more than three times its own weight.
- The wolverine's fur is prized by Eskimo because it does not absorb moisture, or freeze.
- The wolverine is called "the glutton" because people once believed it could eat an entire large mammal.
- A male wolverine ranges over 250 to 400 square miles. The female's range is much smaller, at 20 to 150 square miles.

Left: The wolverine pounces on prey from trees and rocks.

BREEDING

The wolverine declares a temporary truce with other wolverines during the summer mating season. Courtship by the male includes dragging the female around by the scruff of her neck.

The pair may mate several times, for several hours at a time. To help the male keep an erection, a bone, called the *baculum*, stiffens his penis. The vigorous mating induces the female to produce eggs.

In many mammals the fertilized eggs implant in the uterus soon after mating, and then start to develop. The female wolverine delays implantation; the egg cells float in the uterus for some time before attaching to the uterus wall. Delayed implantation means that the young can be born at the right time, from January to April, regardless of when mating takes place.

FOOD & HUNTING

The wolverine, a short-legged, slow and lumbering animal, does not chase or stalk its prey. Instead, it hides in trees or behind rocks, waiting to pounce.

In summer it eats mice, rats, and other small mammals, as well as birds and their eggs. In winter, when snow covers the ground, it eats larger prey, such as reindeer. The wolverine captures this animal by jumping on its back and gripping it with powerful claws (see back cover) until the prey is forced to the ground. Then it tears the animal apart using long, sharp teeth that can cut through bone.

Often, the wolverine lets another animal, such as a bear, do its hunting. After the



animal makes a kill, the wolverine approaches with its *hackles* (neck and back hairs) raised and its teeth bared. The wolverine growls fiercely at the other predator, which usually departs, leaving its meal to the wolverine.

Not only does the wolverine

Above: Mainly nocturnal, during the long polar nights it feeds in daylight.

steal from other animals, but it also breaks into campsites to steal supplies. The animal buries and stores anything it cannot eat at one time.



Right: The wolverine uses a number of dens spread over its range.