



*The gaur is a wild ox that lives mainly in small herds of no more than a dozen animals. Active during the day and most of the night, the gaur alternates between grazing, chewing cud, and sleeping for short spells.*

## HABITS

The gaur lives in herds to protect itself. Its main enemy is the tiger, which can kill a full-grown adult.

Related females and their young make up the largest herds. They are joined by a mature bull during breeding season. Individual bulls sometimes stay with the cows all year and keep watch for predators. The gaur benefits from sharing its range with wild pigs, deer, and birds that give loud warnings if there is an

The gaur favors upland tropical forests. In the high mountain areas where it resides, cold is not a problem. But this wild ox needs woodland to protect it from the burning midday sun.

In place of the long, hairy coat of yak and bison from cold climates, the gaur has folds of loose skin that hang from the neck, known as *dewlaps*. It also has a hairy hump called the *dorsal ridge*. Both disperse body heat to

## BREEDING

The gaur mates in summer, and the young are born in spring when grass is plentiful.

A bull knows when a cow is *in heat* (ready to mate) by sniffing her genitals and her urine. He then challenges his rivals for a chance to mate with her. Fighting is rare. Instead, the winner is usually the one that threatens loudest. The dominant bull may mate with 10 cows in one season, but the hierarchy of bulls changes regularly.

A cow leaves her herd to give birth alone. She keeps a careful watch for predators,

*Left: The gaur has a high ridge on its forehead between its two curved horns.*

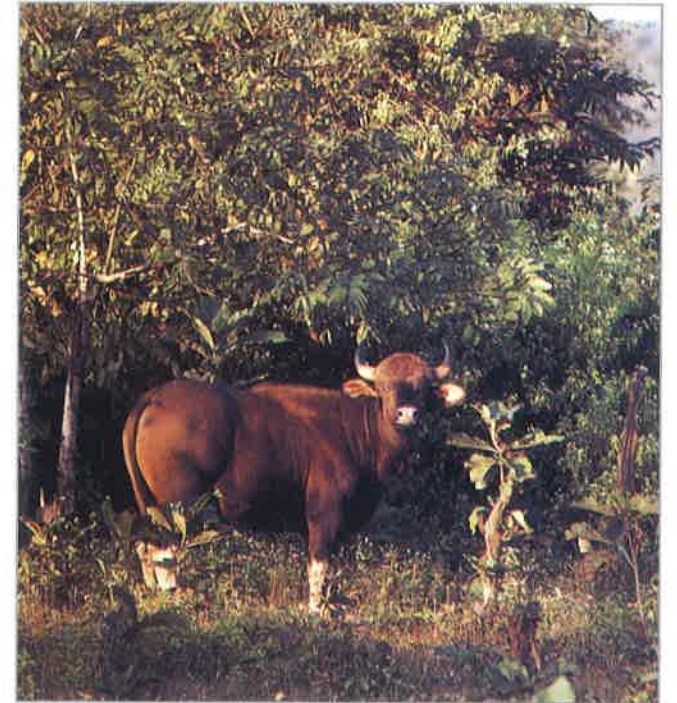
since unattended calves are often killed by tigers.

About four days after birth, the mother and calf rejoin the herd. The calf soon copies its mother's feeding posture. It noses the ground but does not yet nibble the grass.

The calf remains close to its mother and nurses for about two months. The young are very playful, chasing each other and leaping around. But they are closely guarded on all sides by cows.

Young cows mature in the herd. At three years the bull joins a bachelor group.

*Right: Despite its size, the gaur is shy and retreats if it detects an unfamiliar scent.*



## FOOD & FEEDING

The gaur grazes most of the day, although it takes time off early in the morning and in the afternoon to sleep and to chew *cud* (regurgitated food).

Glades within the forest provide grass, but the gaur may also feed on lower slopes in the cool of the evening.

*Left: A herd of gaur drinks at a water hole.*

gaur is agile and can climb down steep gullies for food.

The gaur grazes at night as well. Research suggests that wild cattle rarely sleep longer than an hour in any 24-hour period. Even this short period of sleep is made up of a large number of short, five-minute naps. In areas where a herd is constantly disturbed, this timetable may be confused.



## DID YOU KNOW?

- Wild cattle species often synchronize their actions. When threatened, a herd of gaur all thump the ground with their forelegs in unison.
- At one time the gaur was prized by big game hunters, who considered it a challenging quarry because of its

- Cattle farmers sometimes allow their herds to share pastures with the gaur. This practice can endanger the wild herd, which may catch diseases, such as foot-and-mouth disease.
- The gaur can attack a predatory tiger and gore it

# GRAY WHALE

GROUP 1: MAMMALS

ORDER  
Cetacea

FAMILY  
Eschrichtiidae

GENUS & SPECIES  
*Eschrichtius robustus*



The huge gray whale can be readily identified as it cruises coastal waters. Its skin is dotted with white blotches and encrusted

## KEY FACTS



### SIZES

**Length:** 30-50 ft. Female slightly larger than male.

**Width of tail:** 10 ft.

**Weight:** 25-40 tons.



### BREEDING

**Breeding season:** Winter.

**Gestation:** 11-12 months.

**No. of young:** Single calf.

**Weaning:** 6-8 months.



### LIFESTYLE

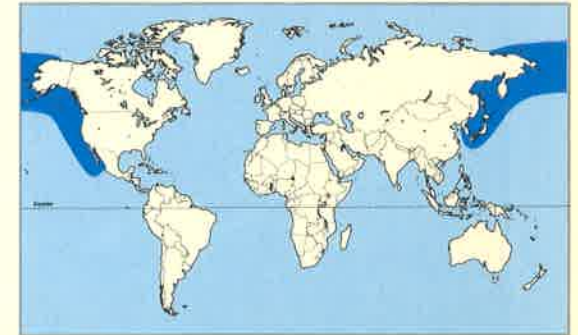
**Habit:** Yearly coastal migrations of up to 6,200 miles (each way). Migrate in groups of 1-3.

**Diet:** Plankton, shrimp, mollusks, and small fish.



### RELATED SPECIES

The gray whale is the only member of this whale family. Its closest relatives are the 9 other baleen whale species, including the blue whale, the right whale, and the minke whale.



Range of the gray whale.

### DISTRIBUTION

Mainly confined to the coastal seas of the North Pacific.

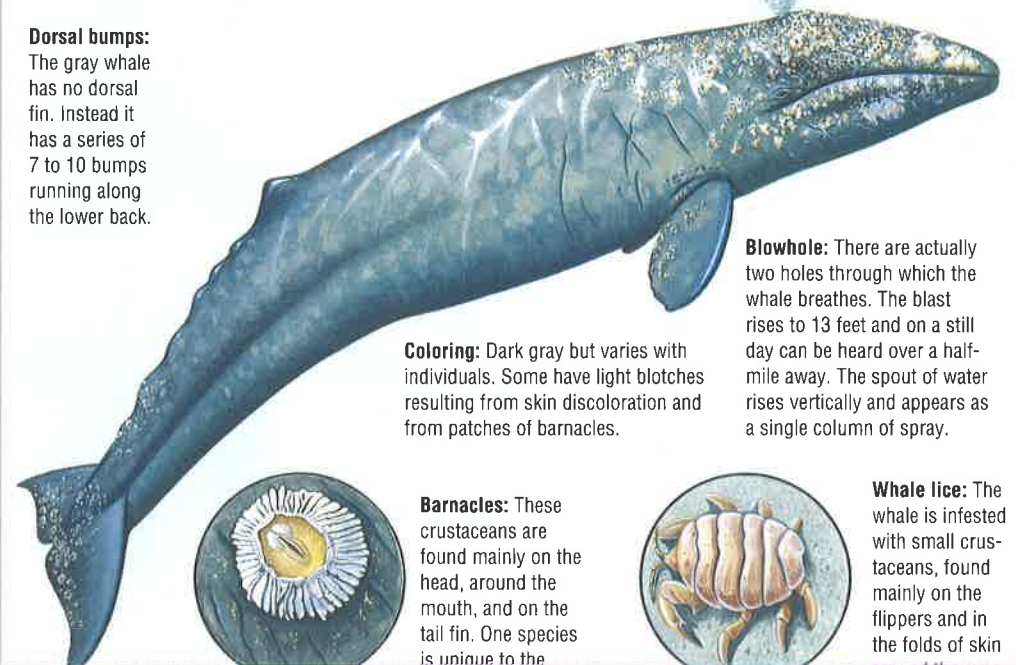
### CONSERVATION

Whaling has greatly reduced the number of gray whales. There are fewer than 200 on the Asian coast, but there are about 17,000 on the North American coast, where the whale is protected. Until the 1600s there were gray whales in the North Atlantic, but they were hunted to extinction.

## FEATURES OF THE GRAY WHALE

### Dorsal bumps:

The gray whale has no dorsal fin. Instead it has a series of 7 to 10 bumps running along the lower back.



**Blowhole:** There are actually two holes through which the whale breathes. The blast rises to 13 feet and on a still day can be heard over a half-mile away. The spout of water rises vertically and appears as a single column of spray.

**Coloring:** Dark gray but varies with individuals. Some have light blotches resulting from skin discoloration and from patches of barnacles.

**Barnacles:** These crustaceans are found mainly on the head, around the mouth, and on the tail fin. One species is unique to the

**Whale lice:** The whale is infested with small crustaceans, found mainly on the flippers and in the folds of skin



*The gray whale differs from other species of whales in many of its habits. Every year it travels up to 12,500 miles round-trip between its feeding and breeding grounds. This journey is the longest migration undertaken by a mammal.*

### HABITS

The gray whale may be the most coastal of the great whales and often appears within half a mile of shore. It is found along the northern Pacific coast, with separate populations on the Asian and North American coasts.

The whale's year is divided into distinct phases of feeding, migrating, and breeding. The North American population spends the summer in the rich feeding grounds of the Bering and Chukchi seas off Alaska's coast. At the end of summer the whales begin a three-month journey south, swimming down the Cana-

dian and U.S. coasts to their Mexican breeding grounds. The pregnant females give birth in these warm winter waters, but after a few months they return to the northern feeding waters.

The small Asian population of gray whales, which may be close to extinction, feeds in northern stretches of the Sea of Okhotsk off Siberia.

*Above: During migration the whale swims close to shore at five to six miles per hour.*

*Right: Gray whales twist their bodies to the right when feeding and use their snouts to rake up prey from the bottom.*



### BREEDING

Mating and birth take place in winter in the warm waters off Baja California and Korea. On the migration south, a female may be accompanied by two males, but she mates with only one. Not long after mating, the whales return north.

Gestation takes 11 to 12 months. When the females swim south the next year, they are ready to give birth.

Calves are 13 to 16 feet long at birth and grow rapidly, adding another 16 feet in the first year. At two months, they accompany their moth-



*Above: Two calves frolic off the shore of Baja California.*

ers on the migration north. Weaning takes place in late summer. From then on, the calf fends for itself. It makes the next southward migration

alone. By then its mother is ready to mate again.



*Left: Baleen plates are made of compressed hair that becomes frayed. As water rushes out, food is trapped in the fibers.*

### FOOD & FEEDING

The gray whale does most of its feeding in summer, taking in great quantities of plankton, shrimp, mollusks, and small fish. It must build up fat reserves to live on during migration and breeding.

Like most great whales, the gray whale feeds by taking in water and straining it through rows of baleen plates on the sides of its mouth. Unlike other whales, the gray whale is a bottom feeder. It dives down and stirs up sediment with its snout. After sucking in this cloud, it expels water and silt through its baleen but traps the bottom-dwelling animals

### DID YOU KNOW?

- Instead of a small dorsal fin, the gray whale has a line of up to 10 ridges along its lower back.
- Gray whales may help an injured or sick companion by pushing it to the surface to breathe.
- On the Siberian coast, where ice-cold waterfalls descend some of the sea cliffs, gray whales have been seen taking "showers." They may drive off skin parasites in this way.
- A count on the body of one gray whale revealed 100,000 whale lice.

# SPOTTED HYENA

CARD 151



GROUP 1: MAMMALS

ORDER  
Carnivora

FAMILY  
Hyaenidae

GENUS & SPECIES  
*Crocuta crocuta*



The spotted hyena is a predator and scavenger that lives in the

## KEY FACTS



### SIZES

**Length:** Head and body, up to 5½ ft. Tail, about 1 ft. Female larger than male.

**Weight:** 130-175 lb.

**Height:** 2½-3 ft. at shoulder.



### BREEDING

**Sexual maturity:** 18 months.

**Gestation:** 14-16 weeks.

**No. of young:** 2-3, usually 2.



### LIFESTYLE

**Habit:** Lives mostly in groups.

**Call:** Varied squeals and howls, including well-known "laugh." Some sounds inaudible to humans.

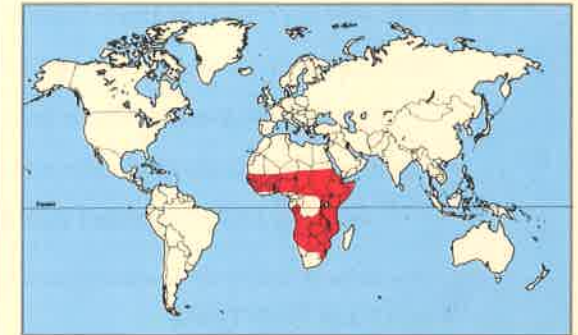
**Diet:** Mostly large prey such as zebras and antelopes. Also carrion.

**Lifespan:** Up to 25 years.



### RELATED SPECIES

The spotted hyena is the largest of 4 hyena species. The smallest is the aardwolf, *Proteles cristatus*, which eats termites.



Range of the spotted hyena.

### DISTRIBUTION

Found in open grassland in Africa south of the Sahara, excluding southern South Africa and the Congo basin.

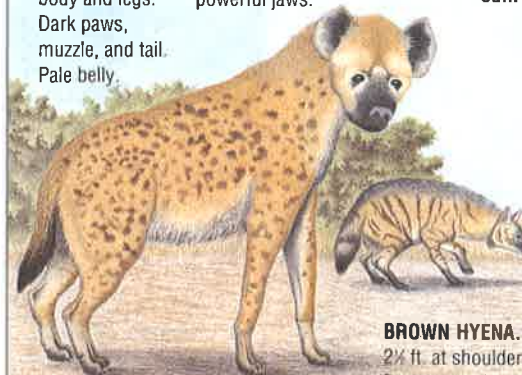
### CONSERVATION

The spotted hyena is still widespread in Africa. Because of its varied diet, it is not currently threatened.

## THE SPOTTED HYENA AND ITS RELATIVES

**Coat:** Short, maned. Sandy red-brown with dark spots on body and legs. Dark paws, muzzle, and tail. Pale belly.

**Head:** Big and broad, with very powerful jaws.



### SPOTTED HYENA.

**Forelegs:** Longer than hind legs. Give hyena its sloping

**AARDWOLF. Height:** About 1½ ft. at shoulder. **Coat:** Dark-striped sandy brown with bushy tail and mane.

**Diet:** Mainly termites, as well as small mammals, reptiles, and some carrion.

**Call:** Soft bark or growl.



### BROWN HYENA. Height:

About 2½ ft. at shoulder. **Coat:** Dense.

Dark brown body, sandy brown mane. Striped legs. **Diet:** Small

mammals, reptiles, eggs, insects, carrion. **Call:** Howl, growl, hoot.

### STRIPED HYENA. Height:

2-2½ ft. at shoulder. **Coat:** Sandy gray with

thick mane. Black throat. Stripes on body and legs. **Diet:** Varied, including

mammals, reptiles, carrion, fruit, garbage. **Call:** Soft howl or growl.

*With its sloped back and heavy build, the spotted hyena is larger than any of its three close relatives.*

*It roams wild over much of Africa south of the Sahara*

*Desert, where it scavenges from carcasses or kills*

*its own prey. It usually hunts in packs,*

*which can bring down large prey and can force*

*even big cats to abandon their kill.*

## FOOD & HUNTING

The spotted hyena is most active at dusk or night. It may hunt alone but kills more efficiently in a pack. A hyena pack can outrun and bring down zebras or gnus, even though these animals reach speeds of 25 miles per hour.

The hyena seizes its prey by the legs and flank and hangs on until the victim has been brought to its knees. It then tears open the soft underparts. The pack takes about

10 minutes to kill a large animal. Their howls may attract lions or other big cats, but the cats are unable to steal the kill. In fact a hyena pack can force a lion to abandon its own catch.

No food is wasted. What cannot be eaten immediately is buried, and the hyena remembers its location.

*Below: This spotted hyena has scavenged the shattered upper jaw from a warthog carcass.*



## HABITS

The spotted hyena lives in packs of 12 to 100 animals. Females are larger than males, and the most dominant female heads the pack.

Hierarchy in the pack is maintained through body postures. A weak animal may crawl on its belly or sniff and lick another hyena's genital region. Especial-

ly during the mating season, there may be outright aggression leading to the death of the weaker animal.

The spotted hyena's teamwork in hunting and sharing food enables it to adapt to varied habitats and prey.

*Right: This two-month-old pup is already mingling with the adults.*



## SPECIAL ADAPTATIONS

The spotted hyena communicates with others using a series of calls, some of which are too high for humans to hear. Other calls include the well-known laugh, which can carry over several miles.

The hyena also communicates by leaving its scent, using a creamy paste from an anal pouch. It deposits the paste on plants at the

edges of its territory to signal other hyenas not to approach. At close range it also emits the paste as a sign of aggression.

The spotted hyena has very powerful jaws that can crunch large bones. It can even eat tusks and horns. This ability is key for hyenas that scavenge from the kills of lions and other big cats.



*Left: The spotted hyena has a coarse mane in front and a broad head. The female is much larger than the male.*

## DID YOU KNOW?

- The spotted hyena coughs up undigested waste such as horns in pellet form.
- A single hyena is capable of chasing and killing prey three times its own weight.
- People once thought every hyena was both male and female because the

male and female genital organs look alike.

- The hyena howls toward the ground, while wolves and dogs point their noses toward the sky.
- The hyena resembles a dog but is more closely related to a mongoose.

## BREEDING

During the mating season, a male approaches a female submissively but is usually driven off by a dominant male. Only the highest-ranking male mates with the female.

After a long gestation the female gives birth to two or three cubs in a den shared with other nursing females. She fiercely defends her young from adult males, who might kill the pups if they were allowed to come near.

Newborn hyenas are better developed than most meat eaters. They can see and run immediately and have most of their teeth. Nevertheless, they depend on the mother for food. The mother suckles them outside the den and slowly weans them onto meat. They are not fully weaned until about 18 months old.

*Below: A mother carries her pup with a gentleness that belies the power in her jaws.*

