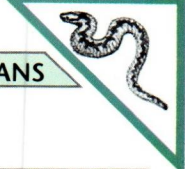


SAMPLE

CARD 3

# ILE CROCODILE

GROUP 3: REPTILES & AMPHIBIANS



CLASS  
*Reptilia*

ORDER  
*Crocodylidae*

GENUS & SPECIES  
*Crocodylus niloticus*



**The Nile crocodile is the largest crocodile in Africa, and one of the largest in the world. Up to 20 feet and over 1,500 pounds, it is a deadly predator of both animals and people.**



*Left: Crocodiles are cold-blooded and must avoid extremes of temperature. They bask on the bank at cooler times of the day and then move into the shade or water to escape the heat of the midday sun.*

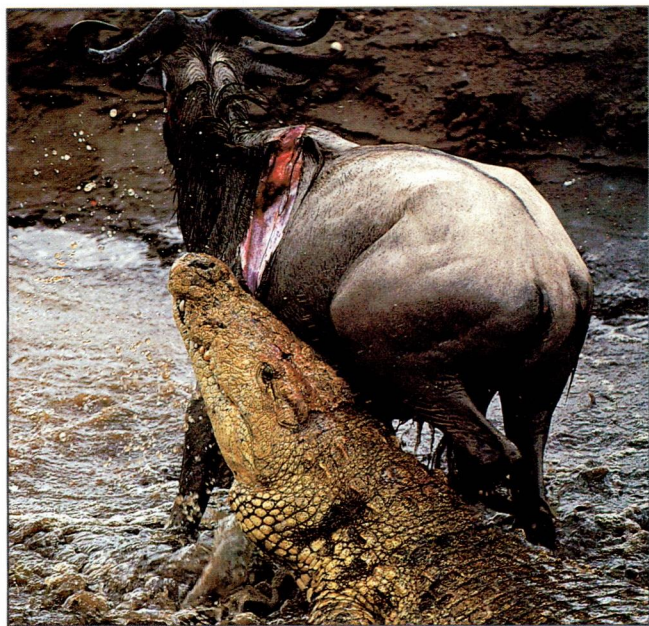
## DID YOU KNOW?

- The sex of crocodiles is determined by their incubation temperature. Eggs incubated at temperatures below 85° F hatch into females, while those incubated above 95° F become males.
- The largest of all crocodiles reaches 25 feet, while the smallest rarely exceeds 5 feet.
- Crocodiles are the closest living relatives to birds.
- In Africa, the Nile crocodile accounts for more human deaths each year than any other meat-eating animal.
- Crocodiles have teeth in their lower jaw that fit into notches on either side of the upper jaw; in alligators, all the teeth in the upper jaw overlap those in the lower jaw.

## FOOD & HUNTING

The Nile crocodile preys on animals that come to the water to drink. It hunts wildebeest, gazelle, buffalo, wild dog, and lion.

The crocodile uses its strong jaws and teeth to seize the animal and drag it under the water until it drowns. The crocodile cannot chew, so prey is not eaten immediately, but is wedged underwater beneath a tree trunk until it rots. It eats all its prey, including bones, hooves, and antlers. Strong juices in its stomach, and pebbles which it deliberately swallows, help it to digest its food.



J. Scotti/Planet Earth Pictures

*Above: A Nile crocodile attacks a wildebeest and prepares to drag it under the water to drown it.*

*Left: The Nile crocodile swims rapidly, propelled by its long, muscular, flattened tail.*





*A living relic of prehistoric times,  
the crocodile is the only surviving member of the  
reptile family to which the dinosaur belonged.*

*As such, it provides a fascinating opportunity for study,  
and may provide new information about the  
habits of extinct animals.*

## HABITAT

Within its range, the Nile crocodile lives alongside rivers, lakes, and water holes. During the wet season, when the waterways flood, the crocodiles migrate long distances, returning to their old territories when the water level falls.

## BREEDING

During the spring, the female digs out a nest in the riverbank where she will lay her eggs. The location of the nest is important; it must be close enough to the river so that the female can keep watch, but not so near that it floods.

Crocodiles mate in shallow water, sometimes after thrashing wildly about. The thirty to seventy white, hard-shelled eggs are covered with sand and guarded by the mother until the young inside begin making chirping noises. The mother then digs the young

out, cracks open the eggs if necessary, and carries them to the water.

The female remains close to her young for many weeks until they disperse along the river. Only a small part of her brood will reach adulthood. Most fall prey to predators.



*Far left: The eggs hatch 90 days after being laid. Young crocodiles are 12 inches long at hatching and grow about 10 inches a year.*

*Left: After hatching, the female picks up the young in her mouth and carries them to the water.*

## KEY FACTS



### SIZES

**Length:** Up to 20 ft. (from head to tip of tail).

**Weight:** Up to 1,650 lb.



### BREEDING

**Sexual maturity:** 6-7 years.

**Breeding season:** Often July.

**No. of eggs:** 30-70.

**Incubation:** 3 months.



### LIFESTYLE

**Habit:** Solitary, or in small groups of similar-sized animals to avoid being preyed on by larger crocodiles.

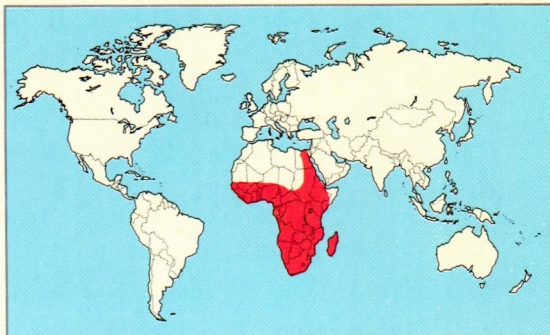
**Diet:** Mammals, reptiles (including other crocodiles), birds, fish, and carrion.


**Lifespan:** Estimated 70-100 years.



### RELATED SPECIES

There are 22 species of crocodile found throughout the tropical and subtropical areas of Asia, Australia, and North America.



 Range of the Nile crocodile.

### DISTRIBUTION

The Nile crocodile is found throughout most of Africa, from Egypt in the north to South Africa. It is absent from the cooler parts of North Africa and the dry Sahara desert.

### CONSERVATION

The Nile crocodile is still quite numerous throughout most of its range, but most of the other crocodile species are severely threatened due to overhunting for their skins and meat.

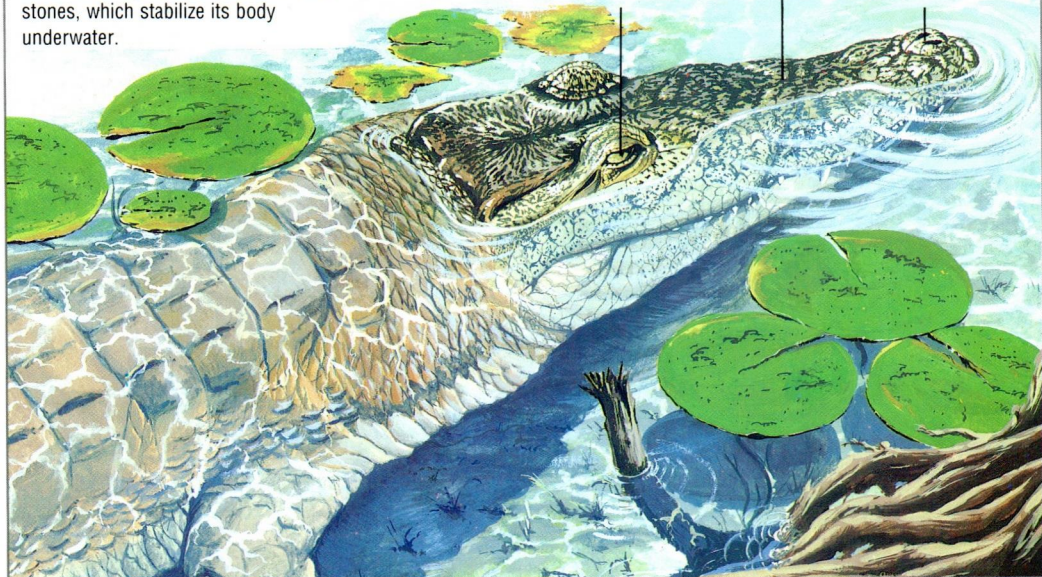
## UNDERWATER LIFE OF THE NILE CROCODILE

The Nile crocodile's eyes, nostrils, and ears all lie along the top of its head so that it can see, hear, smell, and breathe when submerged. Its stomach is full of stones, which stabilize its body underwater.

The **eye** has a third eyelid which gives protection when diving.

The long **snout** is armed with sharp, cone-shaped teeth.

Special **muscles** enable the nostrils to close when diving.



SAMPLE

CARD 7

# GIANT PANDA

GROUP 1: MAMMALS



ORDER  
*Carnivora*

FAMILY  
*Procyonidae*

GENUS & SPECIES  
*Ailuropoda melanoleuca*



***Among the shyest and rarest of wild animals, the bear-faced panda, with its black and white coat and prominent black eye markings, is one of the world's best-known mammals.***

## GIANT PANDA & MAN

At one time, the greatest threat to the giant panda's survival was man, who hunted it for its pelt. Today the principal cause of its decline is the erosion of its habitat due to crop cultivation or from natural causes such as die-back of bamboo. As its natural habitat becomes increasingly surrounded by human settlement, the panda can no longer migrate to unaffected areas.

The Chinese people now support any measures neces-

sary for the panda's protection. As a result, those caught hunting the animal face severe penalties.

Special sanctuaries have been established in the panda's natural habitat with enough space for 500 to 600 animals. Scientists are studying the animal's habits and instituting a comprehensive conservation program.

Zoos are also collaborating in the development of a captive breeding project.



## SPECIAL ADAPTATIONS

The panda has adapted well to its diet. It uses its *carnassial* (meat-tearing) teeth to slice through bamboo shoots.

The forepaws of the panda have an extra "thumb" which, when used in conjunction with its "forefingers," enables the panda to grasp even small bamboo shoots with precision. Its paws are broad and have long, retractable claws.

## FOOD & FEEDING

Although the panda is classified as a carnivore, its diet consists almost exclusively of the stems, leaves, and young shoots of various types of bamboo. Because bamboo has a low nutritional value, the panda needs to eat huge

quantities—25 to 45 pounds a day—to sustain itself.

It also eats eggs and some seasonal vegetation.

**Right:** *The peaceful panda requires nothing more than a plentiful supply of bamboo to survive.*

WWF/K. Taraka/Bruce Coleman Ltd



## BREEDING

The mating season is the only time pandas come together.

A single cub is born five months after mating in a nest constructed of bamboo. A panda rarely gives birth to twins; if she does, the second cub is unlikely to survive.

The tiny newborn panda cub is blind; it is six inches long and weighs only three ounces. It stays with its mother for 18 months, until it is independent enough to establish its own territory.

**Left:** *Panda mother and young, Madrid Zoo. Pandas rarely breed in captivity and are seldom seen with young in the wild.*

J. M. Maros/Frank Lane Agency





*At first glance, the giant panda seems to resemble a bear, but in fact its features have much in common with those of a racoon. Although its ancestors were meat eaters, the retiring and peaceful panda is a plant eater, feeding almost entirely on bamboo.*



## HABITS

Pandas are solitary animals. They spend two-thirds of their day feeding and the remainder of the day resting. Extremely agile climbers, they usually climb only when they are in danger from predators such as brown bears, leopards, and wild dogs. They take refuge in the nearest tree until danger has passed.

Pandas have no particular resting place; they simply lie down on the ground wherever they happen to be.

Pandas live in cold, damp conditions. They have exceptionally dense waterproof coats that give protection against these conditions.

## DID YOU KNOW?

- The giant panda has larger molar teeth than any other mammal.
- The giant panda spends 16 hours a day eating, in which time it digests only a small portion of the food.
- The giant panda was unknown in the Western world until 1869.
- The panda's stumplike tail is used to spread secretions produced by the scent glands, which are located

beneath the tail, onto the surrounding area.

- The panda's hearing is so acute that it can detect even the most stealthy predators.
- The panda does not hibernate.

## KEY FACTS



### SIZES

**Height:** 5 ft. standing erect.  
Females slightly smaller.  
**Weight:** Up to 265 lb. Females weigh less.



### BREEDING

**Sexual maturity:** Not known.  
**Breeding season:** Not known, but thought to be April.  
**Gestation:** 5 months.  
**No. of young:** Usually single cub.



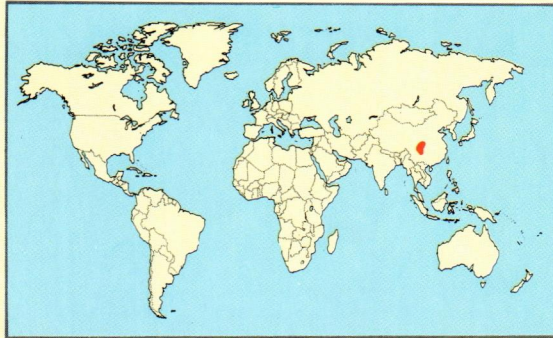
### LIFESTYLE


**Habit:** Solitary.  
**Diet:** Mainly bamboo, supplemented by berries, fruit, flowers, fungi, grasses, bark, and occasionally small animals.



### RELATED SPECIES

The name panda is taken from the animal now known as the cat-bear. The cat-bear is also known as the lesser or red panda.



 Range of the giant panda.

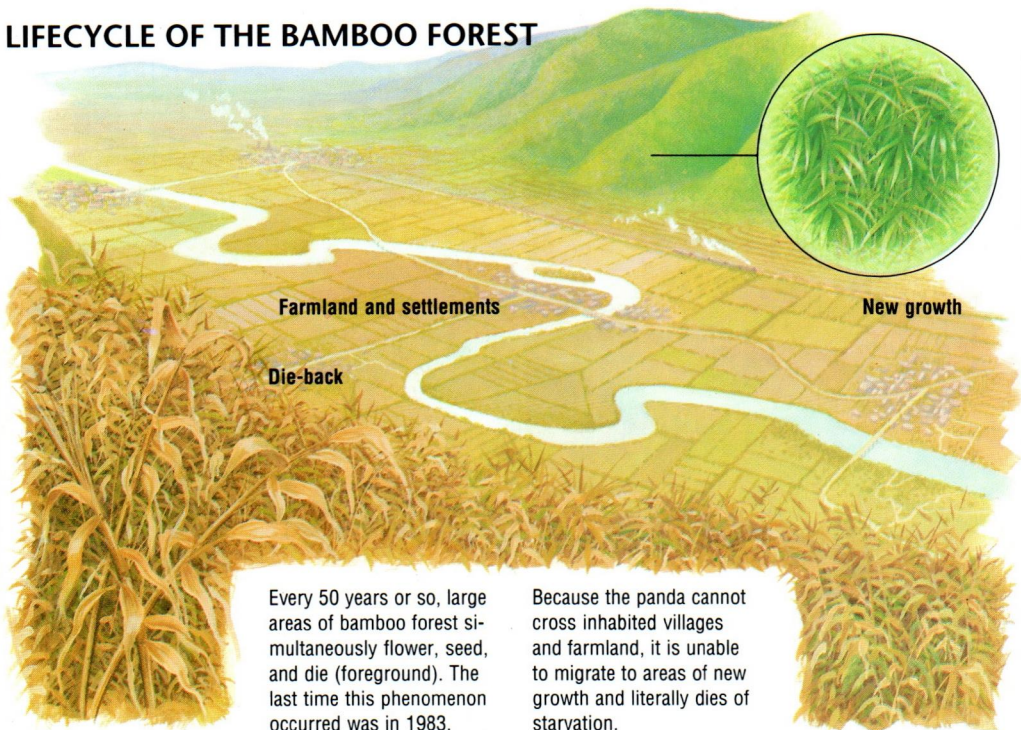
### DISTRIBUTION

Southwestern China, notably the Qionglai, Daxiangling, Xiaoxiongling, and Liang Mountains in Sichuan Province; also the Min Mountains and Qinling Range in Shaanxi Province.

### CONSERVATION

The giant panda is threatened with extinction. From an estimated 1,000 in 1983, the numbers have dropped to 300 following die-back of forest (see below).

## LIFECYCLE OF THE BAMBOO FOREST





SAMPLE

CARD 7

# SEE THE WHALES

GROUP 11: CONSERVATION

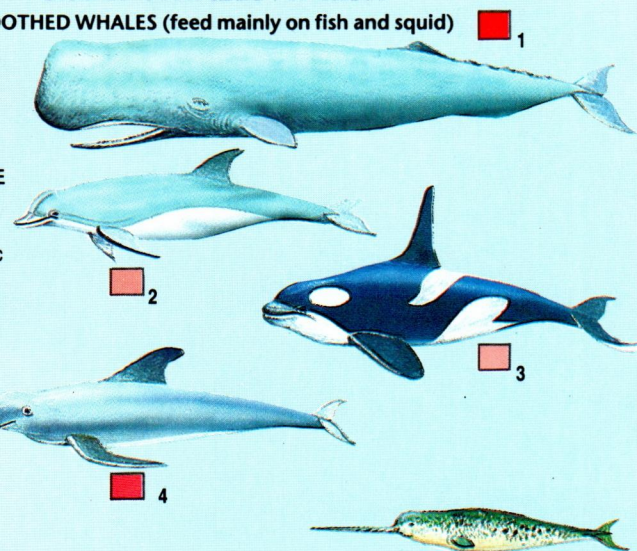


F. Gohier/Ardea London

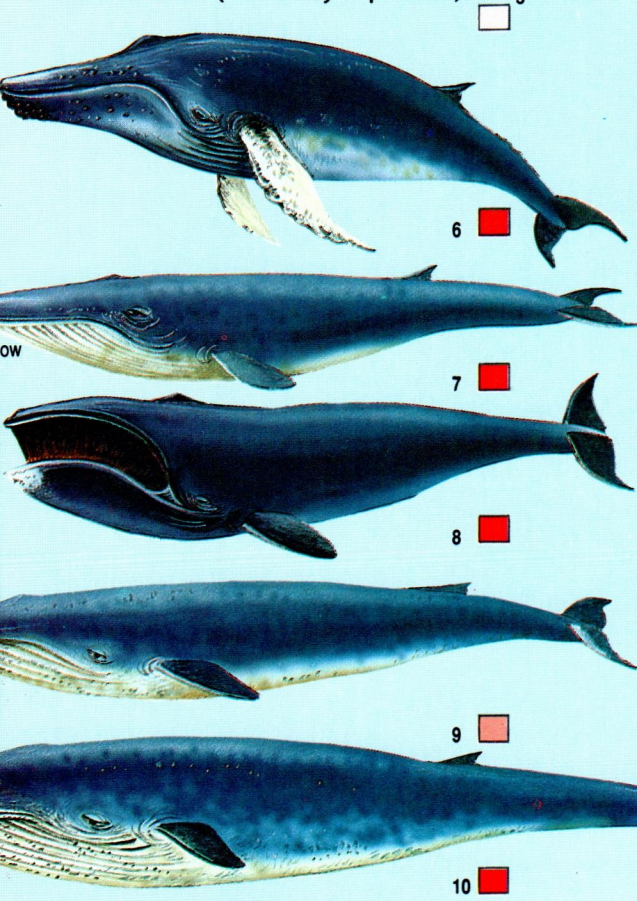
***Although many countries have banned whale hunting, the plunder goes on. These gentle giants, whose family includes dolphins and porpoises, still need all the help they can get.***

## GREAT WHALES AT RISK

**TOOTHED WHALES (feed mainly on fish and squid)**



**BALEEN WHALES (feed mostly on plankton)**



## MANY THREATS

Despite the current ban, whales aren't entirely safe. They're still hunted in the name of scientific research and by "pirates."

The fishing industry depletes the whale's food stock and often kills whales indiscriminately in the course of fishing. Water pollution is another hazard, and noise can interfere with the echolocation that whales use to navigate.

## FACTORY SHIPS

In the 1860s, steam ships and the explosive harpoon gun enabled whalers to hunt more whales, further depleting the declining whale stocks.

N Merritt/Planet Earth Pictures



In 1905 whalers discovered the waters of Antarctica, where the whaling industry became centered. Factory ships made processing faster, and 46,000 whales died during 1938. By the 1950s, the blue whale had all but disappeared.

During the 1970s, conservation organizations realized that, unless action was taken, many of the great whales would become extinct.

### KEY TO STATUS

	Endangered
	Declining
	Vulnerable
	Not Known

*Since 1986, thanks in part to public concern  
and action from conservation organizations,  
there has been an international ban on  
commercial whaling. Even so, whales are still  
hunted, and an estimated 11,000 have  
been killed since the ban.*



N. Merritt/Planet Earth Pictures

## THE WHALE FAMILY

Whales are a large group of warm-blooded mammals especially adapted to life in the sea. The ninety or so different species are classified in two groups.

*Toothed whales* have sharp teeth with which they catch and eat fish and other marine mammals. This group includes

sperm whales, dolphins, and porpoises.

*Baleen whales* don't have teeth. Their mouths are lined with rows of bony plates through which they strain seawater, feeding on the tiny plankton, or sea life, it contains. The blue whale is a baleen whale.

## EARLY WHALERS

Whales have been hunted for thousands of years. Their blubber provided oil for lamps, and the meat from a single animal could feed an entire village.

Early whalers eliminated

bowhead and right whales from the North Atlantic by the late 1700s and from the North Pacific by the 1850s. Sperm and right whales declined worldwide in the late 1800s.

### 1. SPERM WHALE

**Length:** Males, 60 ft. Females, 36 ft.

**Weight:** Males, 44 tons. Females, 24 tons.

**Habitat:** All ocean edges, including north and south polar seas.

### 2. NORTHERN BOTTLE-NOSE WHALE

**Length:** Males, 30 ft. Females, 24 ft.

**Weight:** Males, 4½ tons. Females, 4 tons.

**Habitat:** Deep offshore waters of North Atlantic and Arctic.

### 3. KILLER WHALE

**Length:** Males, 26 ft. Females, 23 ft.

**Weight:** 8-9 tons (both sexes).

**Habitat:** All parts of all oceans.

### 4. PILOT WHALE

**Length:** Males, 20 ft. Females, 16 ft.

**Weight:** Males, 5 tons. Females, 2½ tons.

**Habitat:** Prefers deep waters of cooler areas.

### 5. NARWHALE

**Length:** Males, 15½ ft. Females, 13 ft.

**Weight:** 1.1 tons.

**Habitat:** Northwest Atlantic and across Aleutian chain in Pacific.

### 6. HUMPBACK WHALE

**Length:** Males, 48 ft. Females, 50 ft.

**Weight:** 38-50 tons (both sexes).

**Habitat:** All oceans.

### 7. SEI WHALE

**Length:** Males, 49 ft. Females, 52 ft.

**Weight:** 15½-19 tons (both sexes).

**Habitat:** All oceans, avoiding very cold or shallow waters.

### 8. NORTHERN RIGHT WHALE

**Length:** 49 ft. (both sexes).

**Weight:** 66 tons (both sexes).

**Habitat:** Confined to shallow waters.

### 9. FIN WHALE

**Length:** Males, 69 ft. Females, 72 ft.

**Weight:** 44-45 tons (both sexes).

**Habitat:** All oceans.

### 10. BLUE WHALE

**Length:** Males, 82

ft. Females, 85 ft.

**Weight:** 100-160 tons (both sexes).

**Habitat:** All oceans.

## THREAT TO DOLPHINS AND PORPOISES

The nets used by the fishing industry are a major threat to marine mammals. Whales trapped in fishing nets can't surface to breathe, so they drown. North Sea cod fishermen's nets kill 3,000 harbor porpoises each year.

In the Pacific, yellow fin tuna fishermen have killed an estimated six million dolphins since the 1960s. The tuna follow the dolphins, who are better hunters. Since dolphins are easier to see than tuna, the fishermen set their nets around both.



*An estimated quarter million dolphins a year are lost to the yellow fin tuna fishing industry. U.S. law requires fishermen to release the dolphins before hauling in their nets, but this law is hard to enforce.*

Greenpeace

## CONSERVATION

Around the world, new laws and resolutions have been established to protect whales. The U.S. uses economic sanctions to help enforce them.

Another approach has been to raise public consciousness of the whale's plight. Greenpeace activists impede whalers by positioning volunteers in inflatable boats between the harpoon gun and the whale. These methods protect only a few individual whales, but the conflicts keep the issue in the news.



Greenpeace

## HOW YOU CAN HELP

Oceans cover most of the earth's surface. If we destroy the life that they contain, we threaten our own existence. Steps we can take to ensure that governments protect the oceans include:

- Supporting conservation organizations in their efforts to protect the whale.
- Buying canned tuna only from companies that take steps to protect Pacific dolphins.
- Boycotting products of nations that continue to hunt whales until their whaling ceases.
- Lobbying our political representatives to take action to curb sea pollution.

# BARN OWL

SAMPLE

CARD 12

GROUP 2: BIRDS



ORDER  
*Strigiformes*

FAMILY  
*Tytonidae*

GENUS & SPECIES  
*Tyto alba*



S. Dalton/NHPA

**The barn owl is a silent nocturnal hunter. It has such an acute sense of hearing that it can pinpoint the exact location of its prey even on the darkest night.**

## BIRDWATCH

Barn owls are both rare and nocturnal, so you are more likely to see traces of the bird than the bird itself. Daytime—its inactive period—is the best time to look.

Barn owl pellets are a sure indication of the bird's presence. They contain unwanted pieces of fur, bones, teeth, claws,

*Barn owl pellets contain undigested bones and fur.*



beaks, heads, and insect wing cases that the owl can't digest. Two of these pellets are coughed up each day through the mouth, one at a feeding place and one at the nest site.

If you soak a pellet in water for a few hours then gently pull it apart with tweezers, you'll be able to see the bones and fur that the owl discarded from its dinner.



F. Greenway/Bruce Coleman Ltd.

## FOOD & HUNTING

Although barn owls mate for life, they hunt alone. The barn owl's eyes are specially adapted to detect movement in grassland: they have extra light-sensitive rods and cones in the retinas, and their cylindrical shape produces accurate telescopic vision. In the dark the barn owl relies almost totally on its acute hearing.

The barn owl swoops silently and plucks its victim away with its large talons. Its downy feathers help muffle the sound of its movement, so the prey is unaware of the owl's approach.

Mice, voles, and shrews are the owl's staples, but it will also

catch other small rodents, sparrows, and bats. When other food is scarce, barn owls will eat frogs and large insects.

The owl takes its captured prey to a favorite eating place. During the breeding season the male carries the food back to the nest site.



I. West/Natural Science Photos

**Left:** *Over long distances, barn owls carry prey in their beaks.*

**Above:** *A barn owl swivels its head to catch the slightest sound.*

in buildings, but they need open grassland nearby for hunting. Until about 50 years ago, the traditional farm was an ideal habitat. Corn stored in barns encouraged rodents to breed, ensuring the barn owl a plentiful supply of food. Nearby hayfields provided an unlimited source of mice.

## DID YOU KNOW?

- Barn owls don't "hoot" like other owls. They make a hoarse "khurrew" noise.
- In Malaysia, where barn owls were introduced to control plagues of rats, each barn owl family killed about 1,300 rats a year.
- Adult owls swallow prey

whole and head first. To feed their young, they grip the prey with their feet and tear it into small pieces that the owlets can swallow.

- Most birds that live in holes, cavities, or domed nests lay white eggs, since there is no need for camouflage.



E.A. Janer/Nature Photographers Ltd.

*A change of climate in the northern regions of the barn owl's habitat is causing snow to last for longer periods in winter. Bad weather plays a significant part in reducing the numbers of this attractive nocturnal bird.*

## BREEDING

Because barn owls live just two years, they usually breed only once or twice. They mate for life. Barn owls generally use a nest site that's been occupied by generations of barn owls over many decades; still, every year, the male goes through a ritual courtship calling to "show" the female the nest site.

Instead of building a nest, the couple places their four to

seven pure white eggs in a dark space surrounded by pellets.

The female lays the eggs at two-day intervals and incubates them until early May, when their staggered hatching relieves the parents of the burden of feeding all the hungry owlets at once.

The owlets grow gradually bolder. After 60 days they are fully fledged and able to hunt their own food.



J. Burton/Bruce Coleman Ltd.

*A barn owl chick rests after breaking out of its shell.*



J. Burton/Bruce Coleman Ltd.

*A 28-day-old chick. The white down soon changes to buff.*

## HABITAT

Barn owls prefer a warm climate with mild winters. They don't, like many other birds, store extra fat in their tissues to help them survive harsh winter weather, so many die during freezing weather or are too exhausted in the spring to breed.

Barn owls make their homes

## KEY FACTS



### SIZES

**Length:** 13-14 in.  
**Wing length:** 12 in.



### BREEDING

**Sexual maturity:** 1 year.  
**Breeding habits:** Courtship starts in March. Couples mate for life.  
**Eggs:** 4-7. Sometimes 2 broods.  
**Incubation:** 33 days by female.  
**Fledging:** 60 days.



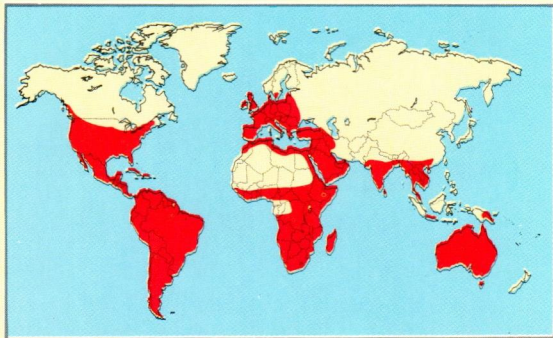
### LIFESTYLE


**Diet:** Mainly mice, voles, and shrews. Also rats, sparrows, bats, frogs, and large insects.  
**Lifespan:** Average 2 years.



### RELATED SPECIES

There are 9 species of barn owl—some very rare—and 36 subspecies of *Tyto alba* worldwide.



 Distribution of the barn owl

### DISTRIBUTION

Found on every continent except Antarctica.

### CONSERVATION

Now a protected species. Farmers are being urged to leave patches of rough land to encourage rodents; they are also encouraged to supply breeding boxes or leave natural sites undisturbed.

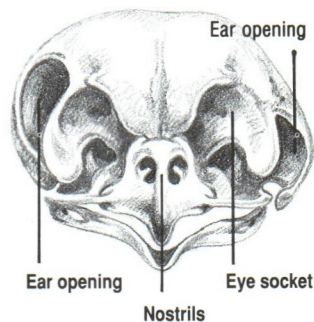
## HOW THE BARN OWL HEARS

The barn owl has superb hearing, and a large part of its brain is devoted to sorting out the auditory signals it picks up.

The ears are asymmetrically placed on the barn owl's head. One is near the owl equivalent of a forehead and the other is level with the nostril.

The very sensitive ears are surrounded by small feathered flaps that can be closed over the delicate inner parts if noise levels rise too high. On still nights, these flaps can be erected to catch the minute squeaks and rustles of tiny prey below.

Barn owls can pinpoint the locations of small creatures using their ears alone. They are able to time the interval between the reception of the sound to each ear, much as humans do, but with far greater accuracy.





SAMPLE

CARD 22



# RANGUTAN

GROUP 1: MAMMALS

ORDER  
*Primates*

FAMILY  
*Pongidae*

GENUS & SPECIES  
*Pongo pygmaeus*



Lanceau/Nature

**The shy and solitary orangutan is second only to the gorilla in size among the primates. Found solely on the islands of Borneo and Sumatra, its population has decreased drastically.**



## FOOD & FEEDING

Fruit, nuts, leaves, bark, insects, and eggs form the diet of an orangutan. When the food supply in a particular area is plentiful, an orangutan may remain in one place for a period of time to feed. Although several orangutans may feed from the same tree, there is little social interaction or competition among them.

Orangutans, like the other

apes, appear to be highly intelligent. They have the ability to memorize the geography of their surroundings and will travel great distances to find trees that have ripe fruit.

When orangutans are thirsty, they locate a hollow in a tree where water has collected from past rainstorms.

*Left: Male orangutans have large cheek pouches.*

*Right: Fruit makes up half the orangutan's diet. It follows fruit-eating birds to fresh supplies. It uses its strong jaws and teeth to open hard or spiky skins.*



*Left: A newborn orangutan weighs no more than 5 pounds, but is already well-developed. Totally dependent on its mother for the first 18 months, it suckles from her, travels by clinging to her, and sleeps in her nest at night.*

## ORANGUTAN & MAN

The orangutan poses no threat to man, yet man is its only enemy. The orangutan's natural habitat has been destroyed to provide land and timber for an increasing human population.

Female orangutans are

slaughtered so that their babies can be captured for zoos. The baby orangutans often die in captivity. Since the breeding rate of the orangutan is relatively slow, its numbers have not recovered and it is now a seriously endangered species.

### DID YOU KNOW?

- Because the orangutan spends most of its life in trees, its arms are longer and stronger than any other ape's.
- "Orang" and "utan" are the Malay words for "man" and "jungle." The literal

meaning of the name, therefore, is "man of the jungle."

- Centuries ago, orangutans were much larger than they are today. Fossil remains show that a species of giant orangutan existed in China 500,000 years ago.

*Of the three great apes—the orangutan, the chimpanzee, and the gorilla—the orangutan is the only one to live outside Africa. Hidden in the dense tropical rainforests which are its home, it is also unique among apes for being truly forest-dwelling.*

## HABITS

The orangutan lives a solitary life in the treetops of the rainforest. With the exception of adult males, orangutans rarely descend to the ground. The orangutan is a *diurnal* animal—that is, active during daylight hours. At night, females and youngsters sleep in a nest of branches placed in the fork of a tree. Because males are heavier, they generally prefer to sleep on the ground. All orangutans sleep on their

sides with their arms cushioning their heads. At daybreak, orangutans leave their nests and search for food.

Orangutans are far less sociable than other apes and do not live in large social groups. Adult males are particularly solitary and stake out areas of forest which they defend as their own territories, fighting other males who intrude if necessary. Females occasionally group together loosely with their young.



## BREEDING

A dominant male orangutan may have a large breeding territory and mate with several females. Mating occurs year-round and females give birth to a single offspring every 3-6 years. A baby orangutan grows very slowly. It may become somewhat independent at 3 years of age, but it will stay with its mother until she gives birth again.

Because female orangutans do not mate again until an offspring is at least 3 years old, they may only succeed in raising two to three young in a lifetime.



## KEY FACTS



### SIZES

**Length:** Males, 4 ft. Females, 3 ft.

**Weight:** Males, 130-200 lb.

Females, 90-110 lb.



### BREEDING

**Sexual maturity:** 8-10 years.

**Mating:** Year-round.

**Gestation:** 260-270 days.

**No. of young:** Usually a single young; twins are rare.



### LIFESTYLE

**Call:** Squeaks and whines. Adult males make long, bubbling calls and also roar.

**Habit:** Diurnal and mainly solitary.

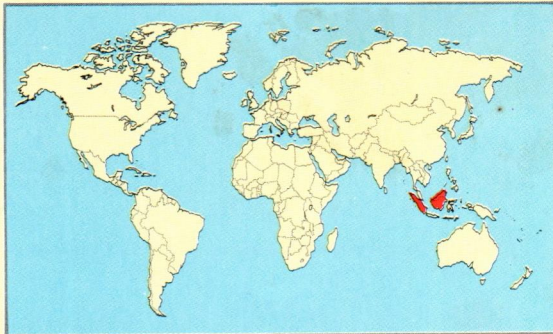
**Diet:** Tropical fruits, leaves, shoots, bark, insects, and eggs.


**Lifespan:** Average 35 years.



### RELATED SPECIES

There is one species of orangutan, with two subspecies living in Borneo and Sumatra.



 Range of the orangutan.

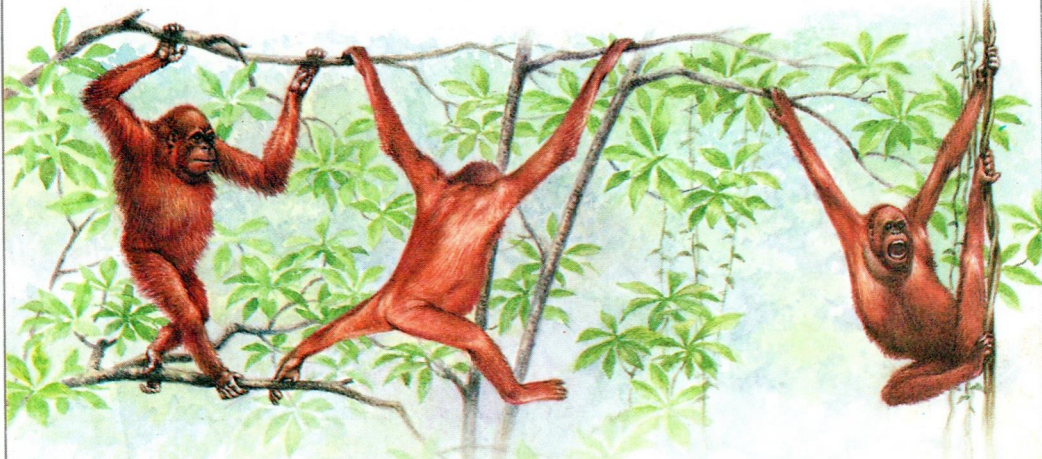
### DISTRIBUTION

Restricted to the islands of Borneo and Sumatra.

### CONSERVATION

In spite of the governments of Singapore and Hong Kong prohibiting their import and export, orangutans are seriously endangered. Protection schemes have had some success in returning orangutans bred in captivity to the wild, but they need to have secure areas provided in their natural habitat.

## SWINGING THROUGH THE TREES



An orangutan is a heavy-bodied animal. It uses its weight to swing back and forth on the branch it is holding, until it comes close enough to reach out and grab a branch of the next tree. The orangutan moves slowly and carefully through the trees, using all four limbs.

Its hands and feet are designed for holding and grasping branches, and its immensely powerful arms enable it to swing and climb in the trees easily.

The big toe on each foot can rotate to touch the ends of the other toes, like the thumb on our hands. In effect, the orangutan has four "hands" for

climbing trees and gripping branches.

On the ground, the orangutan walks on all four limbs, with the feet bent inward and clenched, and the arms either placed flat or clenched on the ground.

# LE PARD

SAMPLE

CARD 36

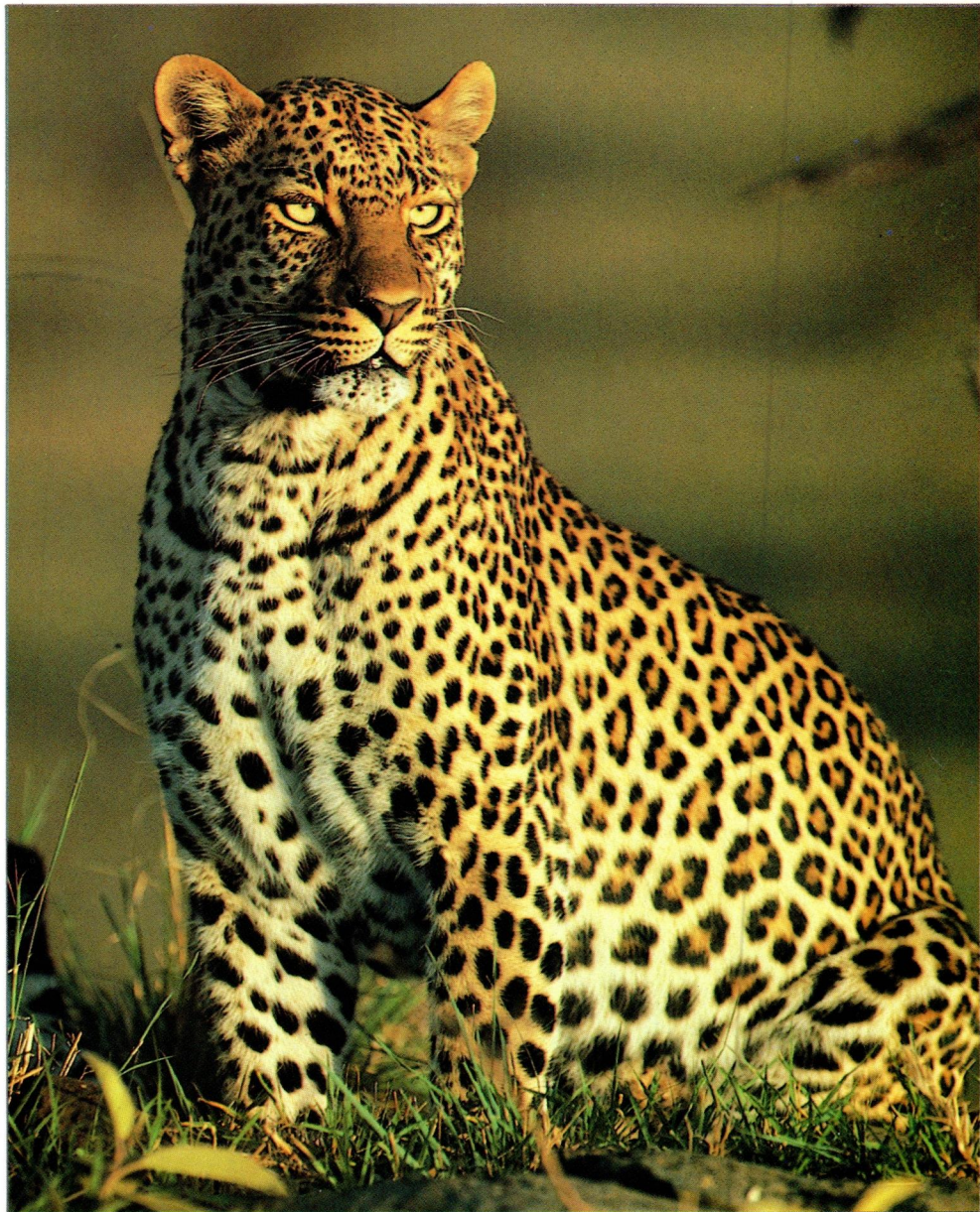
GROUP 1: MAMMALS



ORDER  
*Carnivora*

FAMILY  
*Felidae*

GENUS & SPECIES  
*Panthera pardus*



J. Scott/Planet Earth Pictures

***The solitary leopard is extremely difficult to spot in the wild. It is renowned for its sharp vision and keen sense of hearing, and for its unique ability to avoid detection.***



J. Scott/Planet Earth Pictures

tion period means that the cubs are born underdeveloped; they are helpless and weigh only 15-20 ounces.

While the cubs are still small, their mother carries them to a new hiding place every few days to lessen their chance of falling prey to lions, hyenas, or even male leopards. At this stage in their growth, the spots on their coats are so dense that they appear to be solid gray. Their milky blue eyes, characteristic of the young of all species of cat, open after 9 days.

The cubs generally stay with their mother for 2 years.

**Below:** A female and her cubs emerge from their lair.



D. & M. Plage/Survival Anglia

**Left:** Prey, even a large impala, is stored safely above ground.

## FOOD & HUNTING

The leopard usually hunts at dawn or dusk. After waiting silently among the brush or in a tree, the leopard ambushes its prey. The leopard kills by biting its prey on the throat or the back of the neck.

It will then take its kill, which may be as heavy as itself, up into a tall tree, lodging it in the branches. Here it is safely stored beyond the reach of scavengers such as hyenas and jackals. After eating, the leopard usually visits a water hole to drink.

The leopard eats a wide range of animals, from baboons, warthogs, and medium-sized antelopes to small mammals and birds. Individual leopards will sometimes develop a preference for particular types of food. It is thought that man-eating leopards, which are rare, develop a liking for human flesh after they have tasted it once.

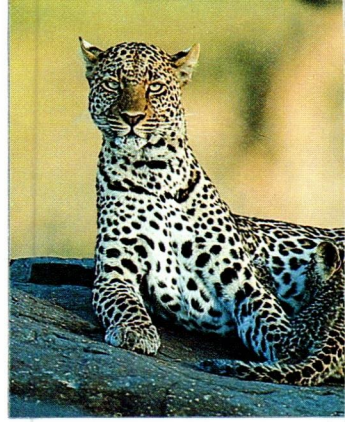
## DID YOU KNOW?

- The range of a leopard's hearing is twice that of a human's, and, in dim light, its sight is six times better.
- The leopard likes to drink daily but can go for as long as a month without water.
- Leopards have a highly developed homing instinct. A group found wandering in a suburb of Nairobi was captured and released in the Tsavo National Park, 200

miles away. Within a few weeks, the leopards found their way back to Nairobi.

- Black leopards, called black panthers, were once regarded as a separate species, but they are now considered true leopards. Although they are black, their rosettes of spots are still faintly visible, and sometimes they are even born into the same litters as common leopards.

*Although most frequently found in forest regions, the leopard can live successfully in a variety of habitats, from semidesert to the lower altitudes of mountains just below the snowline. Its coat color varies from a very pale yellow to black, but it is always spotted.*



### HABITS

Except for a brief time during mating and when the female is rearing her young, the leopard leads a solitary life within a defined territory.

Like other members of the cat family, the leopard marks its territory with urine. It will also shred the bark of particular trees within its

territory. In areas rich in game, territories are smaller than in those areas that have less prey. The territories of males are usually larger than those of females and will often overlap several females' territories. However, males never share portions of their territories.

### BREEDING

Male and female leopards come together to breed for only 6-7 days when the female is in heat. The male is drawn to her by the strong smell of urine she sprays on trees during this time. After mating, the male returns to his territory, leaving the female to give birth and care for the young alone.

The birth takes place in a hidden lair after a gestation period of 3 months. If the female carried her young for a longer period of time, it would restrict her ability to hunt, preventing her from killing enough food for herself and her cubs. But the short gesta-  
**Left: A leopard rests in a tree after a successful kill.**



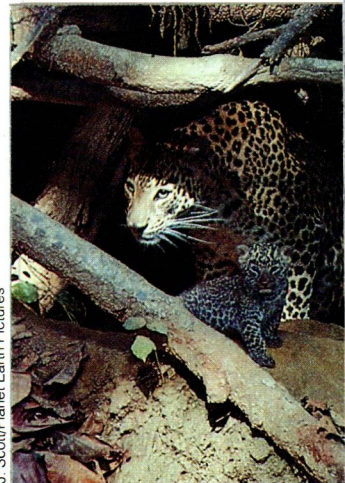
S. Meyers/Ardea London

### LEOPARD & MAN

The leopard has been hunted for its pelt for many years. In the early 1960s, leopard poaching reached an all-time high when an estimated 50,000 leopards were killed in East Africa.

Today the leopard is a

protected species, but it is still hunted by herdsman, shepherds, and poachers. But it is recognized by farmers as having a useful function: it controls such animals as baboons and bushpigs that damage crops.



J. Scott/Planet Earth Pictures

## KEY FACTS



### SIZES

**Height to shoulder:** 20-24 in.  
**Length:** 40-50 in. from head to end of back.  
**Weight:** 80-175 lb.



### BREEDING

**Sexual maturity:** 2-3 years.  
**Mating:** Year-round in tropics, seasonal in other areas.  
**Gestation:** 90-112 days.  
**No. of young:** 2-3 cubs, occasionally up to 6.



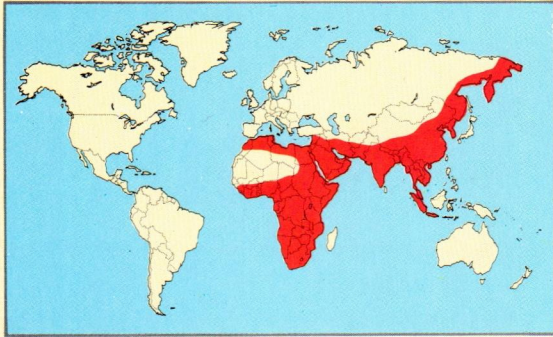
### LIFESTYLE


**Habit:** Solitary.  
**Diet:** Mammals and birds.  
**Call:** Roar, growl, or purr.  
**Lifespan:** 12 years in the wild.



### RELATED SPECIES

The closely related South American jaguar, *Panthera onca*, has similar markings but is larger than the leopard and more powerfully built.



 Range of the leopard.

### DISTRIBUTION

Throughout most of Africa and much of Asia from the Middle East to the Soviet Union, Korea, China, India, and Malaysia.

### CONSERVATION

Numbers greatly diminished. Largely disappeared from Asia Minor, Manchuria, and settled areas. The international fur trade is collaborating in regulating trade in leopard skins.

## THE LEOPARD'S CAMOUFLAGE

The leopard's strongly contrasting markings visually break up the outline of its body and allow it to blend in with its surroundings whether it is resting in a tree (right) or moving through the tall grass (below). With its silent movements and the excellent camouflage its coat provides, the leopard can get as close as possible to its prey without being noticed, before attacking the surprised animal.

