

My First Library of Knowledge

Animals of the world



 Orpheus

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INTRODUCTION

ANIMALS are living things that can move about and must eat food to survive. This food may be plants, other animals, or both. Animals are divided into two groups: vertebrates (with backbones) and invertebrates (without backbones). Vertebrates include fish, amphibians, reptiles, birds and mammals. Insects, spiders, worms and molluscs are invertebrates.

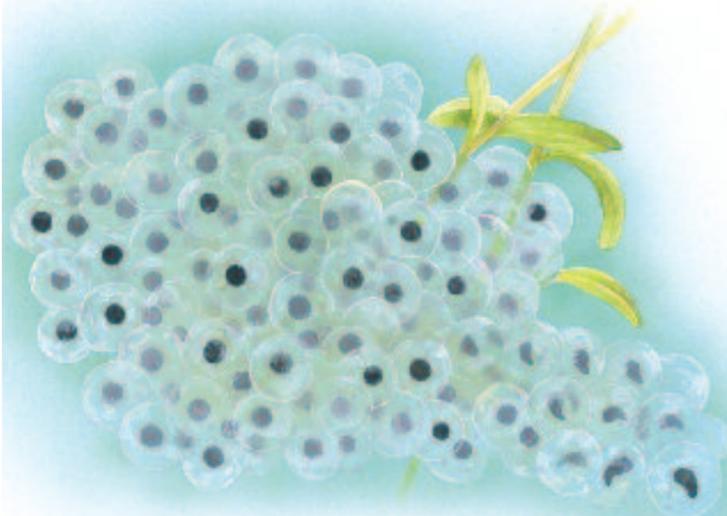
FROGS

FROGS, toads, newts and salamanders are all amphibians. They start their lives underwater. When they grow up, they live on land. They return to the water to lay their eggs.



MOIST SKINS

Like most amphibians, frogs are cold-blooded, four-limbed animals. They have very small lungs, and they can “breathe in” air through their skins. They need to keep their skins moist in order to do this, so adults usually live not far from water.



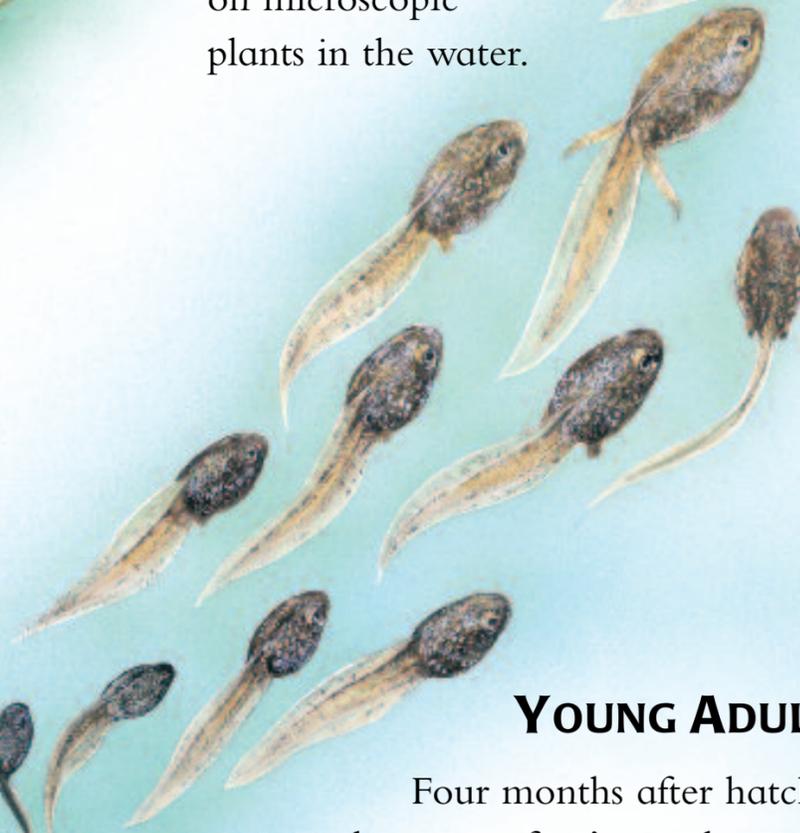
FROG SPAWN

Frogs lay their eggs in ponds or streams. The eggs, or spawn, look like a clump of jelly. The black “dots” are the embryos. The babies that hatch out look very different from their parents.



TADPOLES

The baby frogs, known as tadpoles, look like little fish with big heads and wriggly tails. Like fish, they breathe with gills. They feed on microscopic plants in the water.



After two months, the tadpole grows back legs and lungs. It loses its gills. To breathe, it comes to the water’s surface.

A month later, its front limbs appear and its tail starts to shorten.

YOUNG ADULT

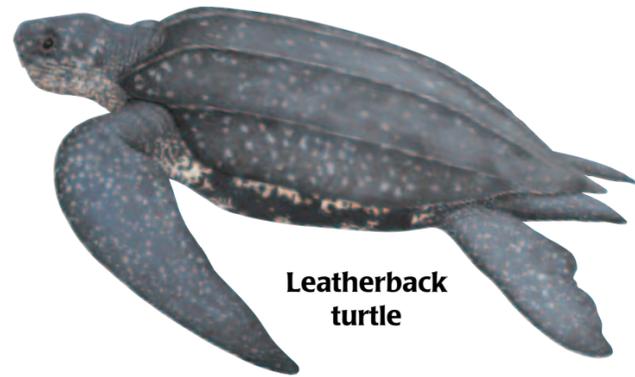
Four months after hatching, the young frog’s eyes have grown bigger and its mouth is much wider. Instead of plants, it feeds on tiny creatures. About 1 cm long, the frog has lost its tail and is now ready for its adult life on land. It will be ready to breed itself when four years old.



REPTILES

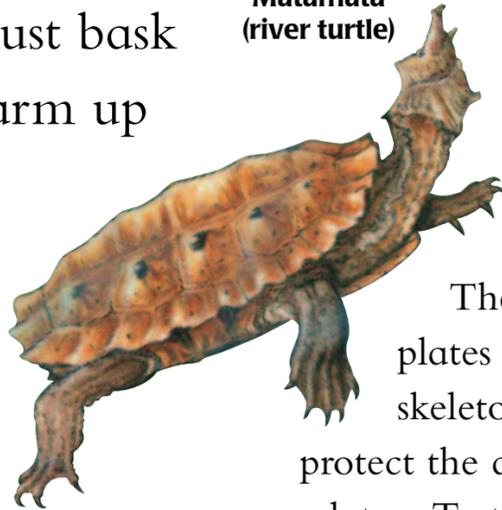
REPTILES are cold-blooded animals with scaly skins. Land-living reptiles must bask in the sun to warm up before going in search of food. Snakes, lizards, turtles, tortoises and crocodiles are all reptiles. Most kinds lay eggs, but some give birth to live young.

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Leatherback turtle

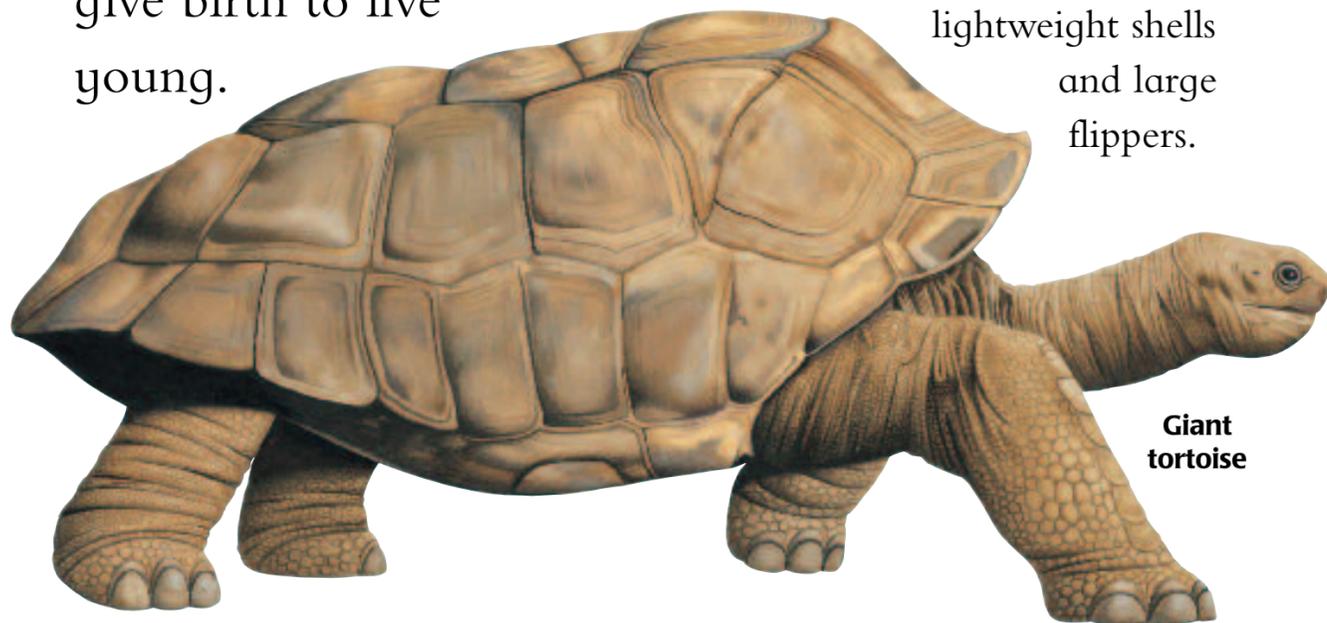
Matamata (river turtle)



REPTILES WITH SHELLS

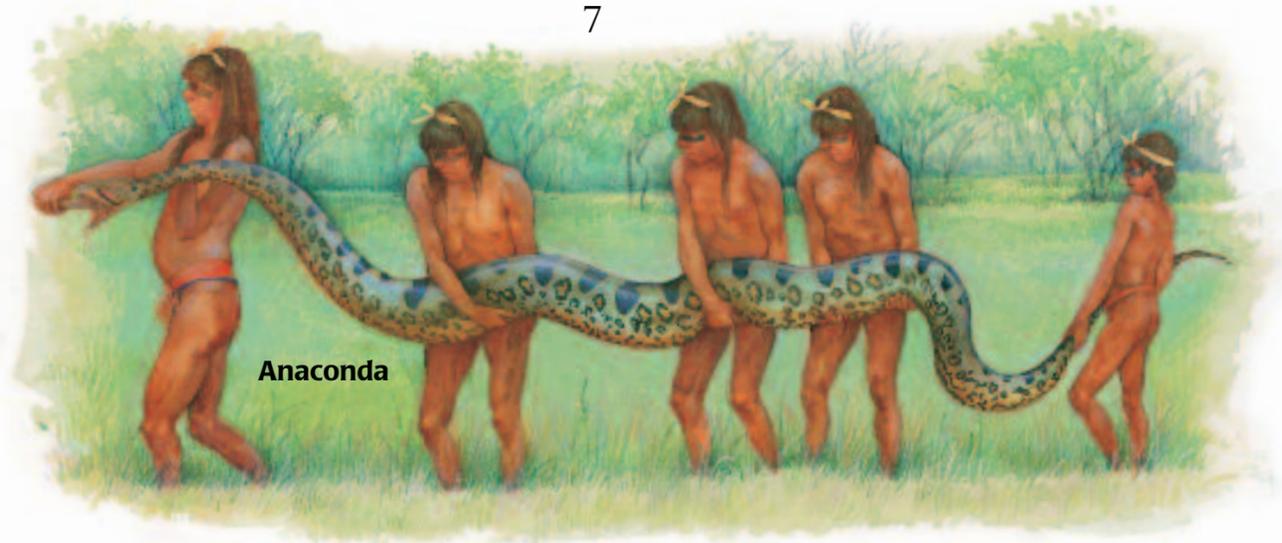
Tortoises and turtles have shells.

They are made of bony plates attached to the skeleton. The shell helps protect the animal from its predators. Tortoises live on land. Some kinds can live for more than 100 years. Turtles live in rivers or the sea. They have lightweight shells and large flippers.



Giant tortoise

7



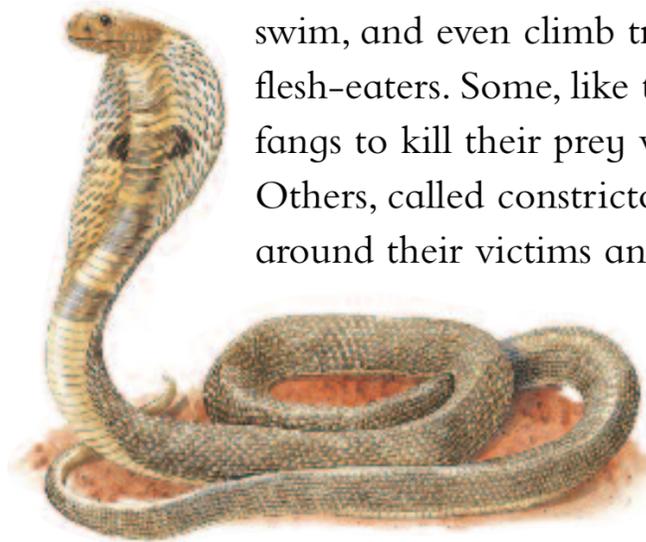
Anaconda

REPTILES WITHOUT LEGS

Snakes can move quickly across the ground, swim, and even climb trees. All snakes are flesh-eaters. Some, like the cobra, use their fangs to kill their prey with a venomous bite. Others, called constrictors, coil themselves around their victims and suffocate them.

The anaconda, from South America, grows up to 9 m long. A constrictor, it swallows its victims whole with its loosely-hinged jaws.

Indian cobra



AGILE HUNTERS

Most lizards prey on small animals. If attacked themselves, some lizards, like geckos, can shed their tails and run away.

Dwarf gecko



TREE MONSTER

The green iguana, also from the South American rainforest, is a 2-metre-long, tree-dwelling lizard. If danger threatens, it drops into the water below.



Green iguana

CROCODILES AND ALLIGATORS

CROCODILES and alligators are very powerful predators. They will attack and eat other large animals—including humans. All these fierce reptiles have long, scaly bodies with thick, bony plates on their backs.

They live close by rivers, lakes and estuaries in tropical regions.

To tell an alligator from a crocodile, look at its teeth. An alligator's are not visible when its mouth is closed; a crocodile's fourth tooth can be seen.

CARING FOR THEIR YOUNG

Crocodiles are very protective of their young. The female lays her eggs in a pit near the water's edge and covers them over. She guards them from predators. After about three months, the hatchlings call out to her from inside the eggs. After they hatch, she carries her young inside her mouth to a safe "nursery area". Here she looks after them for up to six months.

Young crocodiles feed on small prey. Adult crocodiles feed on large mammals that come down to the water to drink. Seizing their prey in their jaws, the crocodiles pull them below water until they drown. Then they tear them apart with their teeth.

Young crocodiles eat crabs or frogs. Older ones feed on fish or animals already killed.



Crocodile hatchlings being carried in their mother's mouth

BIRDS

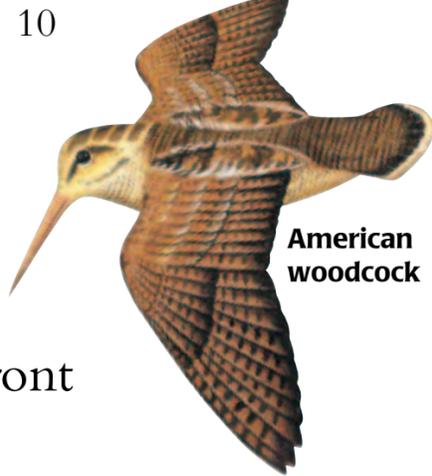
BIRDS are warm-blooded animals with four limbs. Their front limbs are wings. Their bodies are covered with



Toco toucan

The toucan uses its massive beak to grasp fruit.

feathers. They have toothless beaks. All birds lay hard-shelled eggs.



American woodcock

The woodcock uses its long bill to probe under the soil for worms.

WATER BIRDS

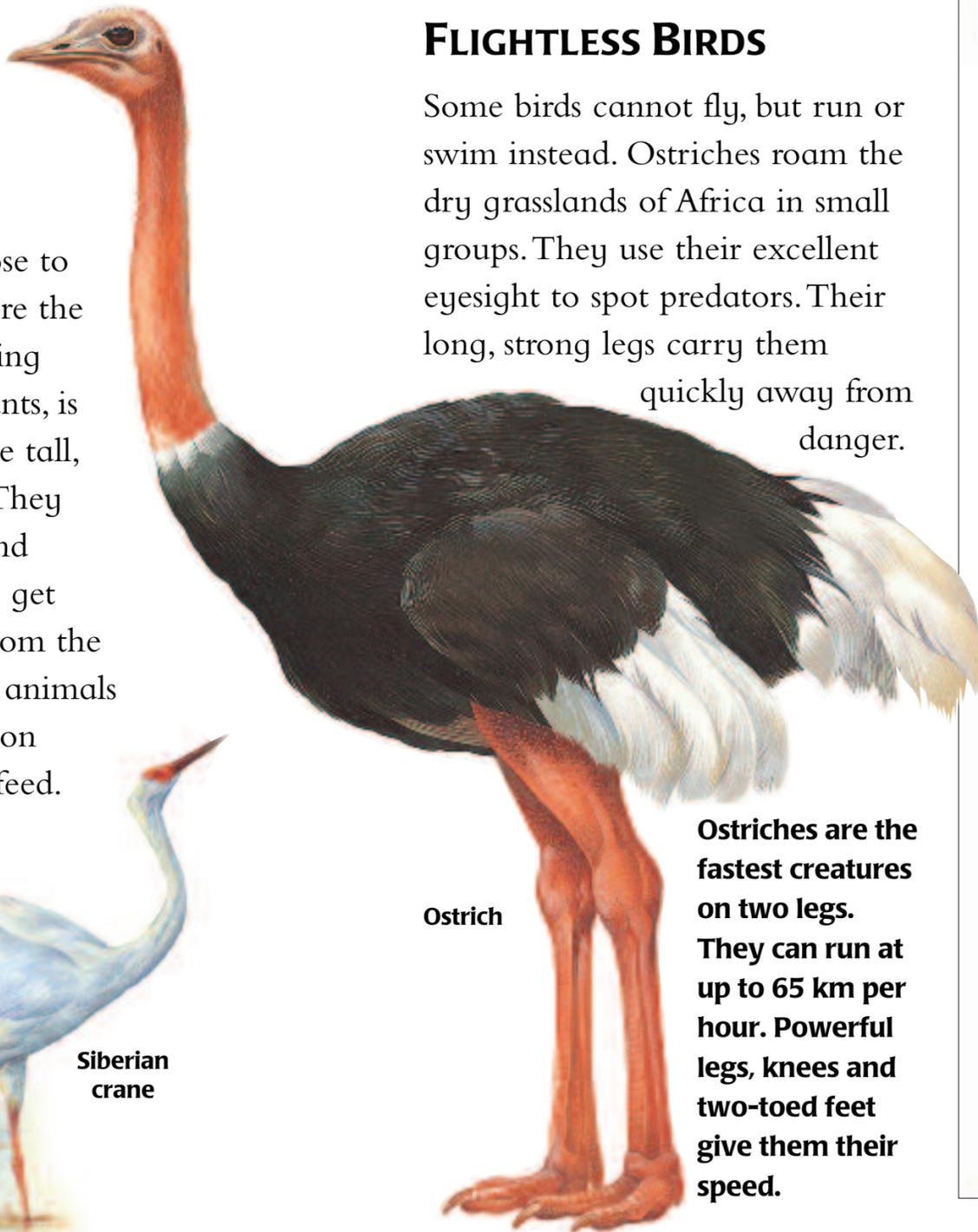
Many birds live close to rivers or lakes, where the food supply, including fish, insects and plants, is plentiful. Cranes are tall, long-legged birds. They inhabit wetlands and swamps. Flamingos get their pink colour from the tiny plants and animals in the water on which they feed.



To feed, a flamingo holds its bill upside-down in the water. Using its tongue, it pushes the water out through tiny comb-like "hairs" in its bill, leaving the food behind.

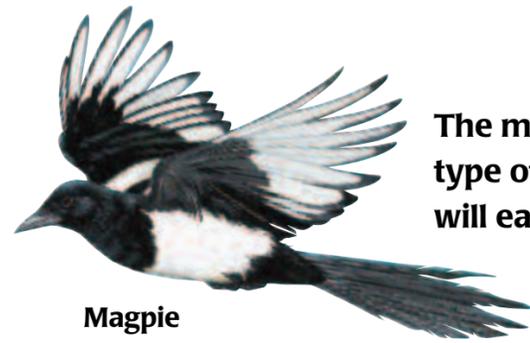


Siberian crane



Ostrich

Ostriches are the fastest creatures on two legs. They can run at up to 65 km per hour. Powerful legs, knees and two-toed feet give them their speed.



Magpie

The magpie, a type of crow, will eat almost anything.

FLIGHTLESS BIRDS

Some birds cannot fly, but run or swim instead. Ostriches roam the dry grasslands of Africa in small groups. They use their excellent eyesight to spot predators. Their long, strong legs carry them quickly away from danger.

BIRDS OF THE NIGHT



Most birds find a safe place to rest at night.

But this is the time an owl hunts for its prey—small mammals, insects and worms, fish, frogs and other birds. Using its superb eyesight and hearing, it swoops down on its victim, seizing it in its razor-sharp talons (*above*). Its soft wing feathers (*right*) allow it to fly in almost complete silence.



BIRDS' NESTS

BIRDS build nests to protect their eggs and their young from predators. The nests also keep the eggs warm

while the adults sit over them. Birds build their nests in places that are hidden away, or out of reach of their enemies.



AN EAGLE'S NEST

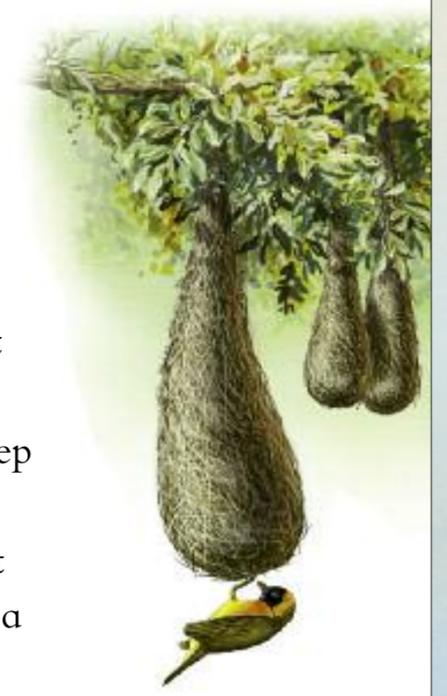
Golden eagles make their nests high in trees or on rock ledges. Newly hatched baby eagles are covered in soft, fluffy feathers known as down. The hatchlings are fed on scraps brought by their parents. Gradually, they will grow adult feathers.

BUILDING A NEST

Tailorbirds (*left*) sew the edges of leaves together to make a nest shaped like an envelope. The weaver is a skilled nest-builder (*right*). It gathers up strips of leaves and weaves them into a deep pouch. The finished nest hangs from a branch.



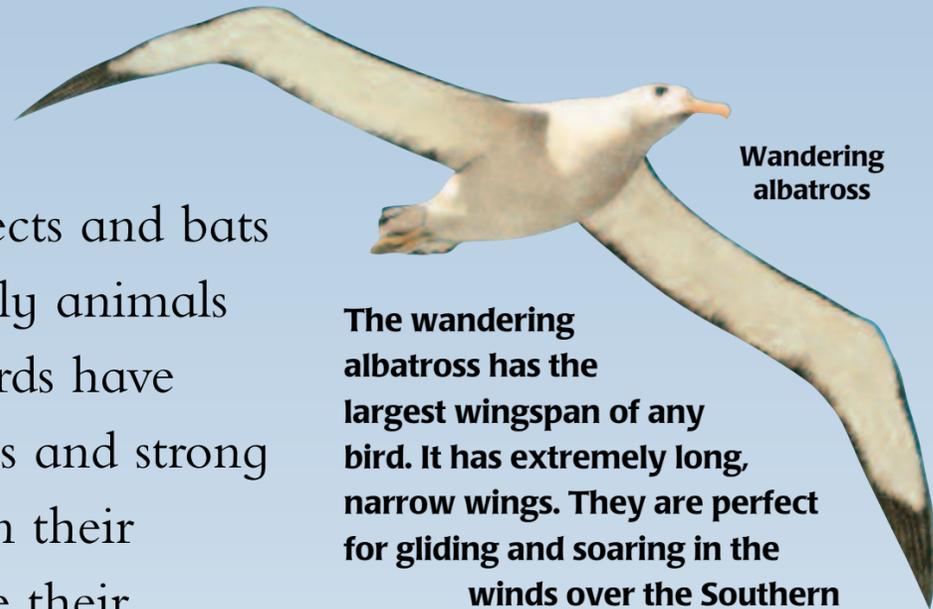
Grebes build floating nests. An attacker would have to swim to reach it



When ready to hatch, the baby eagle chips its way out of its shell using a special egg tooth on its beak.

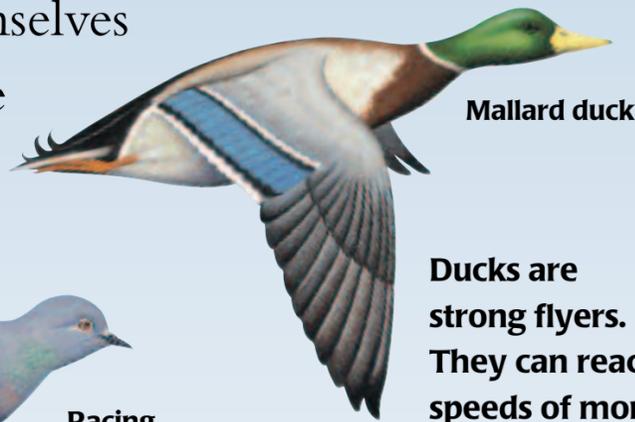
FLIGHT

BIRDS, insects and bats are the only animals that can fly. Birds have very light bones and strong wing muscles in their chests. They use their feather-covered wings to power themselves through the air.



Wandering albatross

The wandering albatross has the largest wingspan of any bird. It has extremely long, narrow wings. They are perfect for gliding and soaring in the winds over the Southern Ocean.



Mallard duck

Ducks are strong flyers. They can reach speeds of more than 100 km per hour.



Spine-tailed swift



Racing pigeon

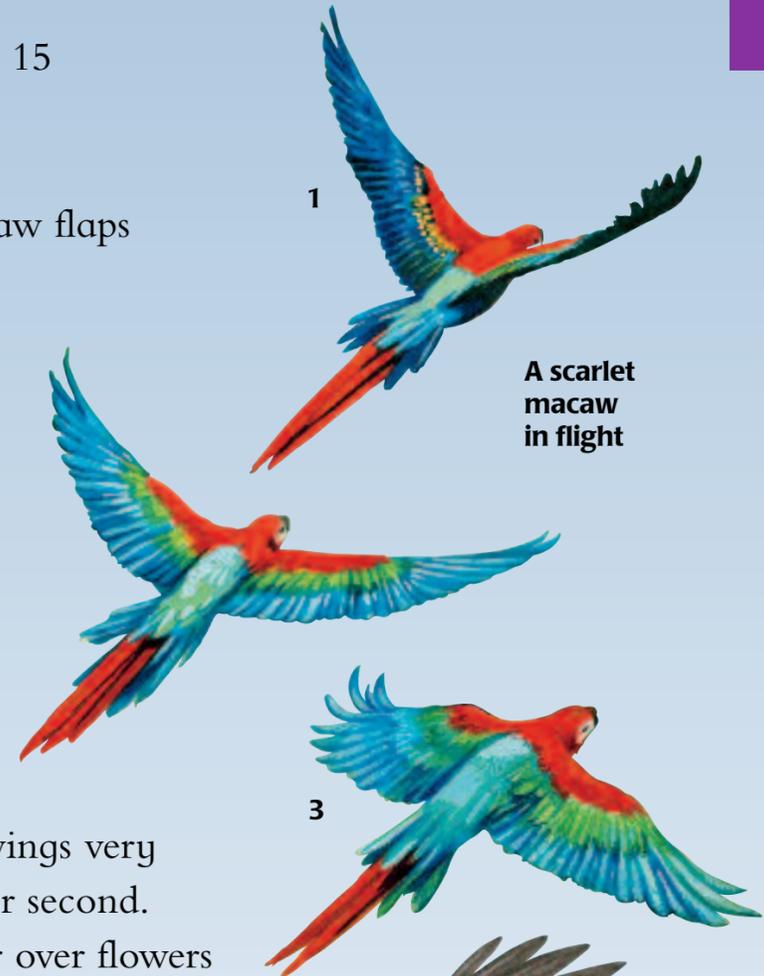
FAST FLYERS

Pigeons are among the fastest flyers. Their powerful wings can keep them airborne for long periods. Racing pigeons are experts at finding their way “home” over long distances.

Swifts are the fastest birds of all. Streamlined in shape, they swoop through the air catching insects in their gaping beaks. Some types of swift can fly at speeds of more than 150 km per hour.

HOW TO FLY

Like most birds, the scarlet macaw flaps its wings to push itself through the air. First, it lifts its wings high up above its back (1). Then it pulls its wings downwards and backwards (2). This makes it move upwards and forwards. Then the wings start to move up again (3).



A scarlet macaw in flight

BIRDS THAT HOVER

Hummingbirds can beat their wings very quickly—as fast as 100 beats per second. This allows them to hover over flowers and collect nectar from them. They can also fly sideways or even backwards. Their wings beat so quickly they make a humming sound.



Hummingbird



Andean condor

The condor uses rising area currents, called thermals, to soar above the mountains.



WHAT IS A MAMMAL?

MAMMALS are warm-blooded animals. They care for their young and feed them with milk. Most mammals have four limbs and a covering of hair or fur.

Many sea mammals have little or no hair covering. To help them swim easily, seals have flippers instead of arms and legs. Whales and dolphins have no hind limbs at all.

Bats are the only mammals that can truly fly. Their wings are made of skin stretched between their long fingers.



Hog-nosed bat



CARING FOR THEIR YOUNG

All mammals, including humans, care for their young after they are born. While the young mammal feeds on its mother's milk, the

mother will protect it from predators. Some, like baby horses, can walk soon

after birth, while others, like baby rabbits (or humans), are completely helpless.

Killer whale

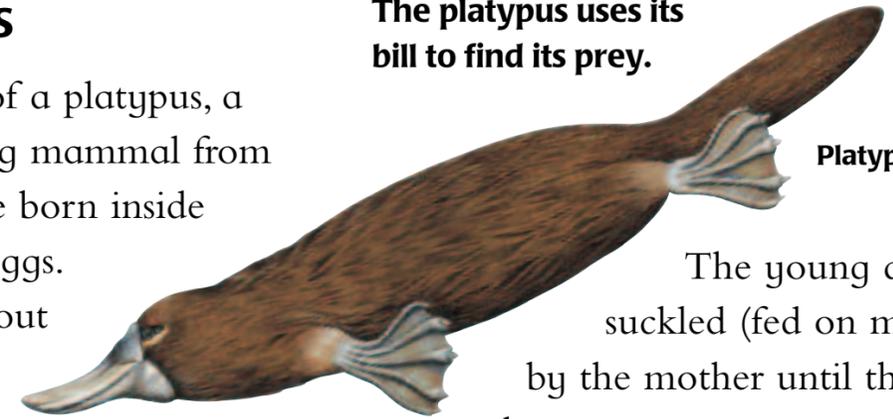


Elephant seal

PLATYPUS

The young of a platypus, a river-dwelling mammal from Australia, are born inside soft-shelled eggs. They hatch out after a few days.

The platypus uses its bill to find its prey.



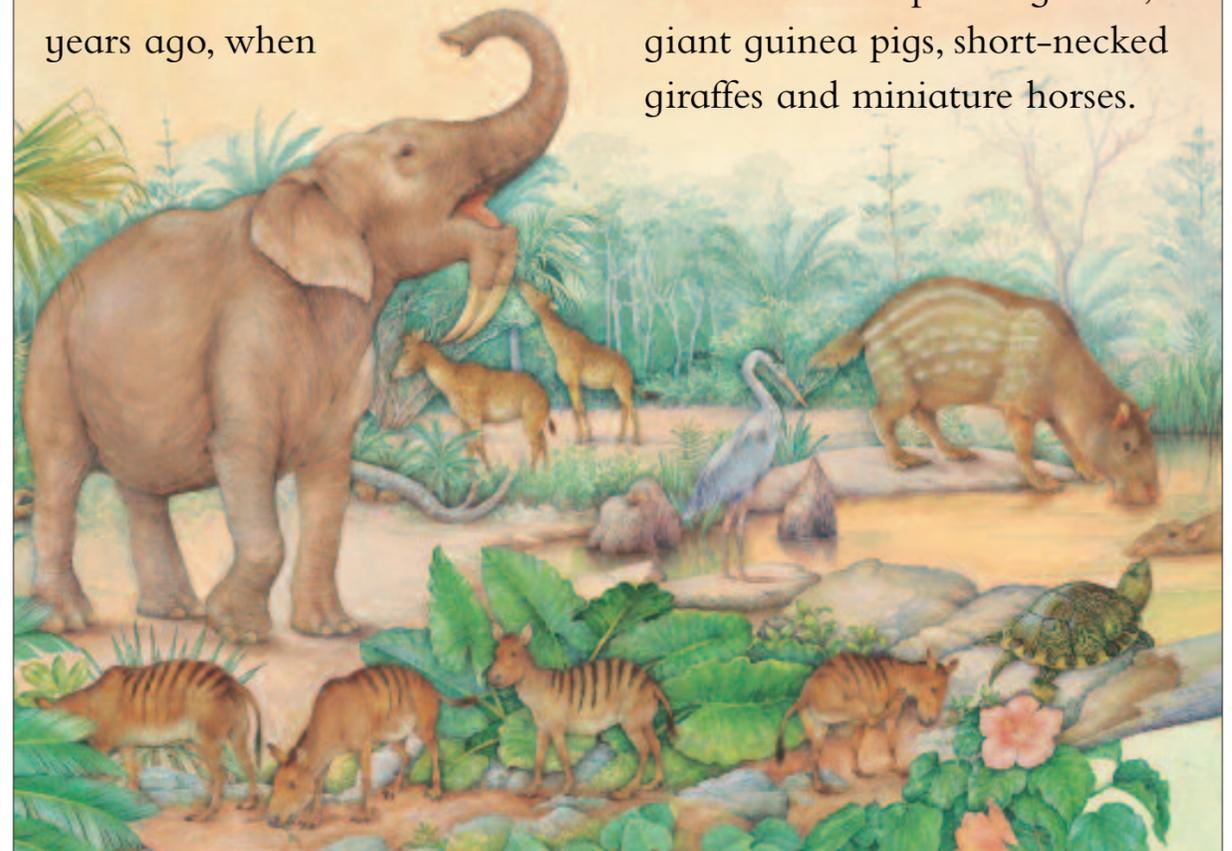
Platypus

The young are suckled (fed on milk) by the mother until they have grown up.

PREHISTORIC MAMMALS

Mammals are descended from reptiles. They first appeared more than 200 million years ago, when

dinosaurs roamed the Earth. Different kinds of mammals lived in the past, including elephants with backward-pointing tusks, giant guinea pigs, short-necked giraffes and miniature horses.



MAMMAL FAMILIES

THERE ARE about 5000 different kinds of mammal. They range in size from tiny shrews, only a few centimetres long, to the 30-metre blue whale.



Three-toed sloth

Sloths, from the South American rainforest, spend most of their time hanging upside down in the trees.

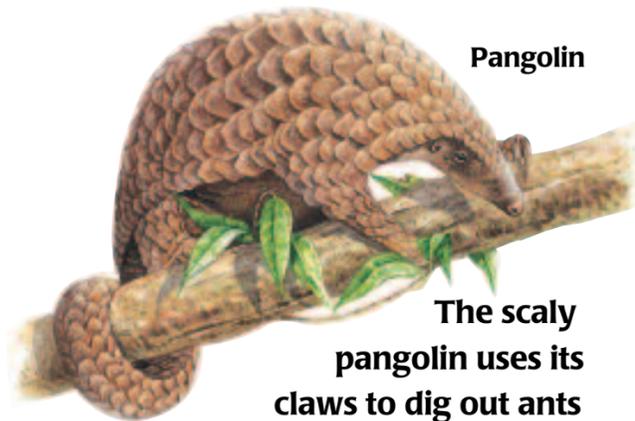


Hare

GNAWING TEETH

All rodents, including mice, rats, porcupines and squirrels have long, continuously growing, sharp front teeth. Rabbits and hares also have them. Most of these animals eat only plant material.

Brown rat



Pangolin

The scaly pangolin uses its claws to dig out ants and termites to eat.

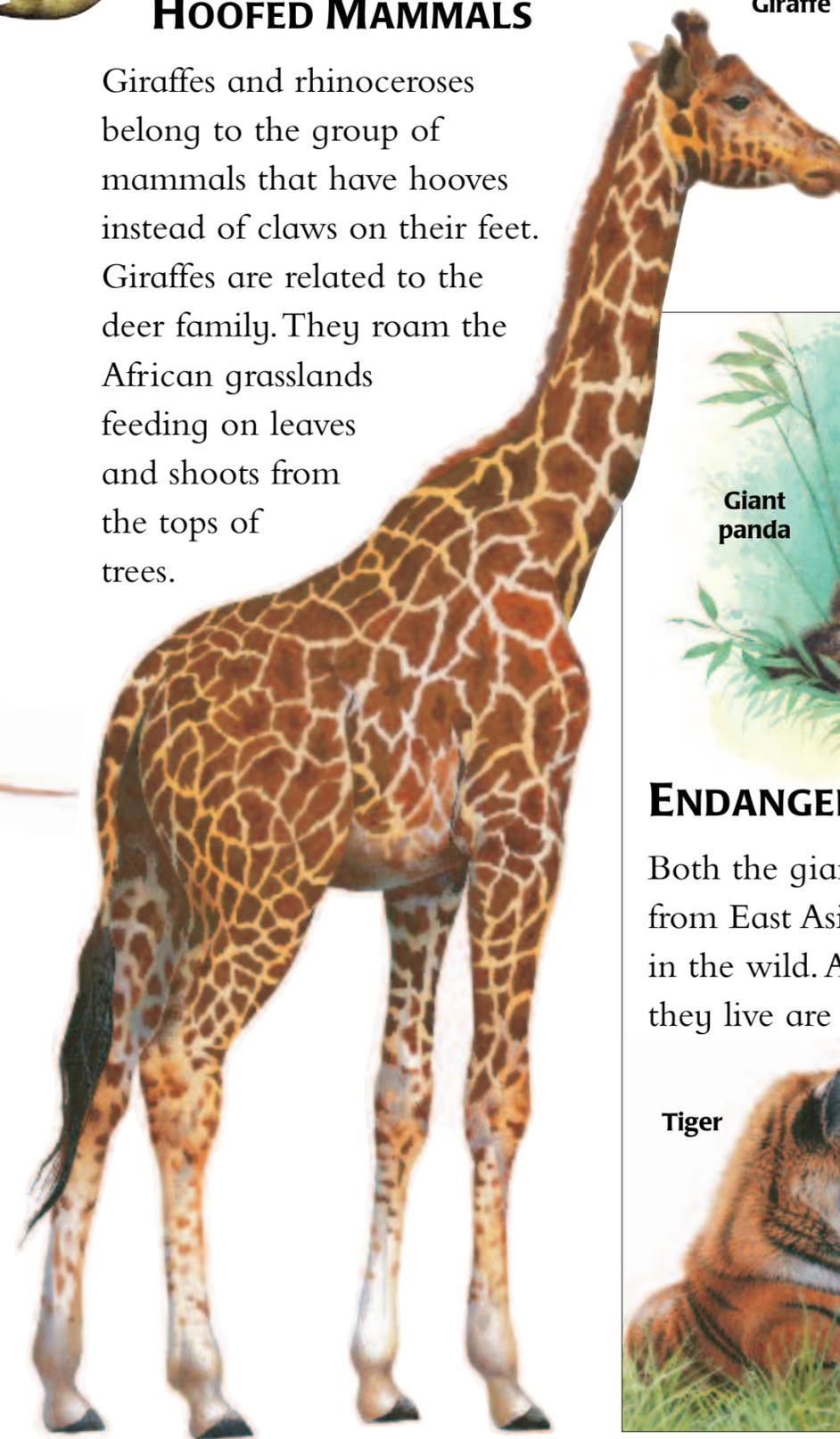
The white rhinoceros grazes alone on the grassy plains of Africa. Its huge body is covered in thick skin.



White rhinoceros

HOOFED MAMMALS

Giraffes and rhinoceroses belong to the group of mammals that have hooves instead of claws on their feet. Giraffes are related to the deer family. They roam the African grasslands feeding on leaves and shoots from the tops of trees.



Giraffe

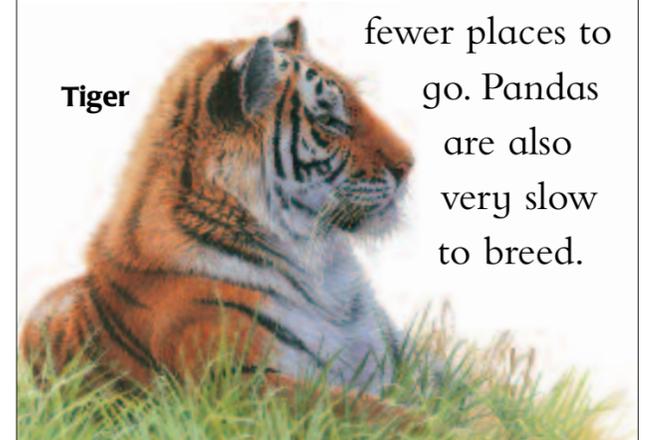
Standing over 5 m in height, the giraffe is the tallest animal on land. It has excellent eyesight and can run at over 50 km per hour.



Giant panda

ENDANGERED!

Both the giant panda and tiger from East Asia are now very rare in the wild. As the forests where they live are cut down, they have



Tiger

fewer places to go. Pandas are also very slow to breed.

MARSUPIALS

LIKE other kinds of mammals, marsupials give birth to live young. But the babies are very tiny and have to be cared for inside the furry pouch on their mother's belly.

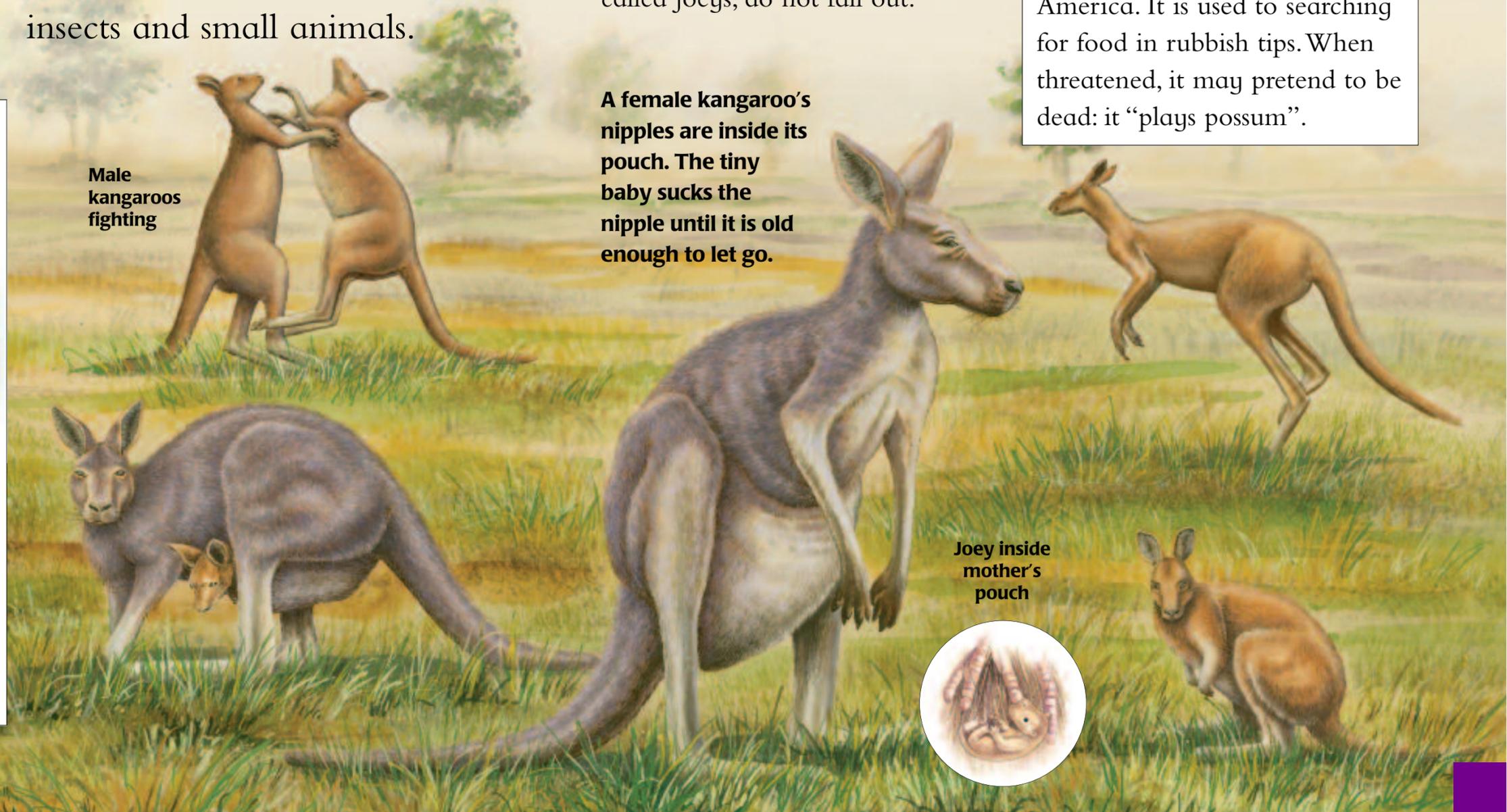


KOALAS

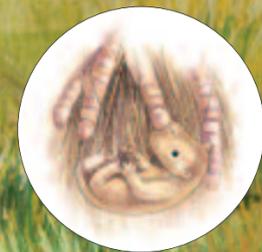
Koalas spend nearly all their lives in the trees, stirring only for a few hours each night to feed on eucalyptus leaves and shoots. They use their grasping hands to cling on to tree trunks—and to their mother's back!

Apart from the opossum family of the Americas, marsupials live only in Australasia. Many feed only on plants, leaves and fruit, but a few prey on insects and small animals.

Male kangaroos fighting



Joey inside mother's pouch



KANGAROOS

Kangaroos live in groups on the hot, dry plains of Australia. They can cover enormous distances bounding along on their strong back legs. Males fight one another to be the head of the herd. Females have deep pouches that are forward-facing so that her young, called joeys, do not fall out.

A female kangaroo's nipples are inside its pouch. The tiny baby sucks the nipple until it is old enough to let go.



OPOSSUM

The Victoria opossum is the only marsupial that lives in North America. It is used to searching for food in rubbish tips. When threatened, it may pretend to be dead: it "plays possum".

HUNTING

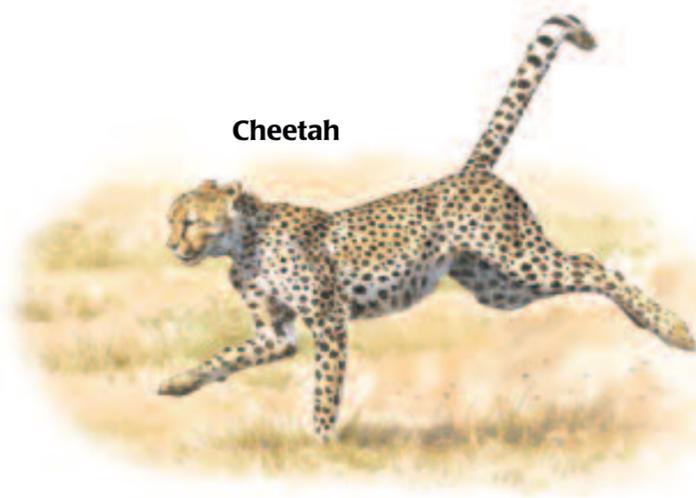
SOME animals seek out and kill other animals for food. Hunters must use stealth, speed and strength to overcome their prey.



Zebra

INTO THE ATTACK

A cheetah may stalk its prey—in this case, a young zebra—for up to several hours. When it is only 30 m away, the cheetah suddenly accelerates into the attack.



Cheetah

SPRINT CHAMPION

A powerful hunter from the dry grasslands of Africa, the cheetah is the fastest animal on land. This big cat can run faster than 100 km per hour.



SEIZING THE PREY

After a short chase, lasting no longer than 20 seconds, the cheetah brings the zebra down. It kills it with a bite to the throat.



Moose

Grey wolves

PACK HUNTING

Grey wolves live and hunt in packs of up to 20 or more. They work together to bring down much larger prey, such as moose, often after a long chase.

EXPERT FISHERS

Grizzly or brown bears eat both plants and meat. They are very skilled at fishing. They wait in the shallows for salmon to swim upstream, leaping out of the

water as they go. The bears catch their prey with either their teeth or their claws. Then they take the fish on land and carefully strip off the flesh, leaving behind the head, bones and tail.

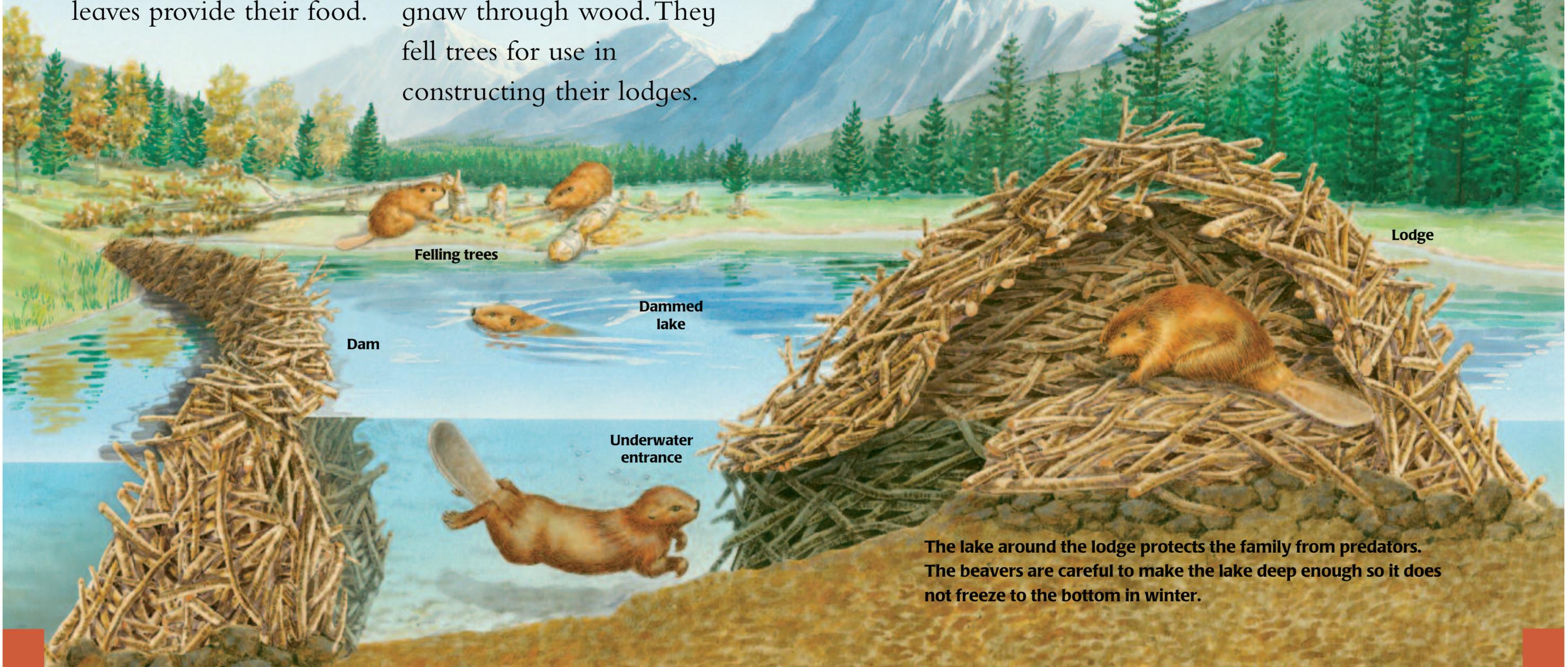


Grizzly bear

BEAVERS

BEAVERS are large rodents. They live in and around rivers that run through dense forests. Bark, twigs, roots and leaves provide their food.

With their webbed hind feet and broad, flat tails, beavers are excellent swimmers. They use their huge, razor-sharp teeth to gnaw through wood. They fell trees for use in constructing their lodges.



BUILDING A LODGE

First, beavers dam a stream to create a lake. They use trees they have felled, or build up a bank with sticks, stones and mud. Then the beavers build

their shelter, a mound of mud and branches. The chamber inside their mound is reached by several tunnels, each with an underwater entrance.

The lake around the lodge protects the family from predators. The beavers are careful to make the lake deep enough so it does not freeze to the bottom in winter.

REINDEER

REINDEER live in the tundra, the treeless lands bordering the Arctic Ocean. In North America, they are known as caribou. They feed in herds, grazing on grasses, lichen and other small plants. The herds mostly consist of the females and their young. In winter, the reindeer scrape away the snow with their hooves to uncover the plants.



A female reindeer gives birth to one or two calves each year.

RUTTING

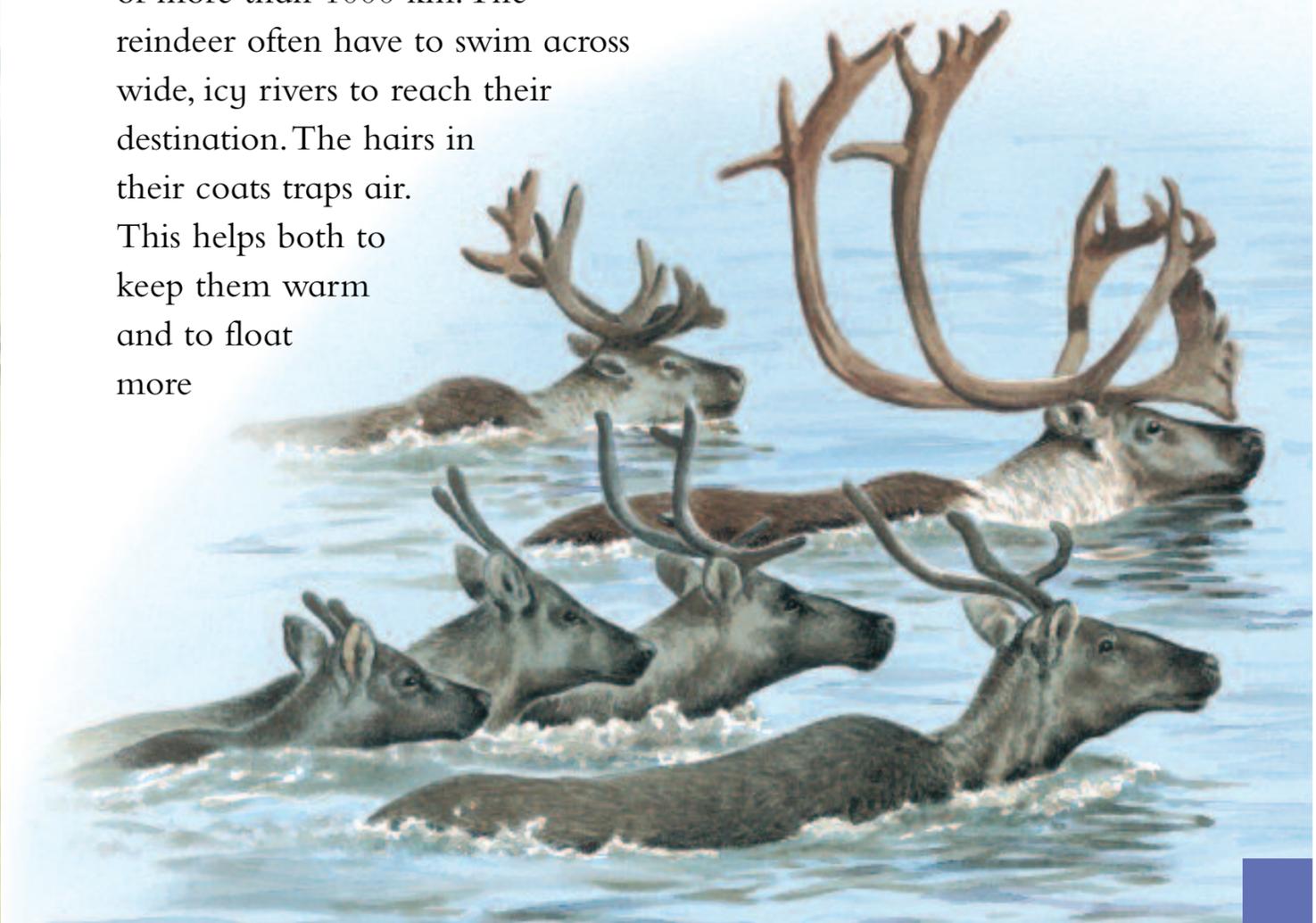
In autumn, adult males join the herds. They compete with rivals for the females by roaring or pushing each other with their antlers.



ON THE MOVE

Every winter, some reindeer herds travel south to warmer forests. This migration may involve a journey of more than 1000 km. The reindeer often have to swim across wide, icy rivers to reach their destination. The hairs in their coats trap air. This helps both to keep them warm and to float more

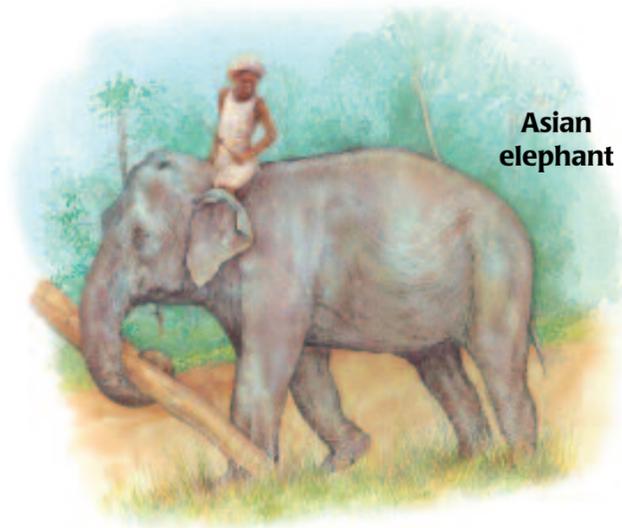
easily in the water as they swim. Moving about in herds provides some protection from predators such as wolves.



ELEPHANTS

ELEPHANTS are the largest land animals. They are intelligent animals and may live for more than 60 years.

Elephants live in family groups. After resting in the midday heat, they roam in search of leaves, shoots and fruits to eat.



Asian elephant

AFRICAN OR ASIAN?

Elephants are found in both Africa and Asia. The African elephant has larger ears and longer tusks than its smaller relative, the Asian elephant. The Asian's back has a more humped shape than the African. Its trunk has only one lip, while the African has two. Many Asian elephants have been tamed and used for carrying heavy loads.

An elephant can even use its trunk as a snorkel. This allows it to breathe while it swims, or when it walks on the river bottom.



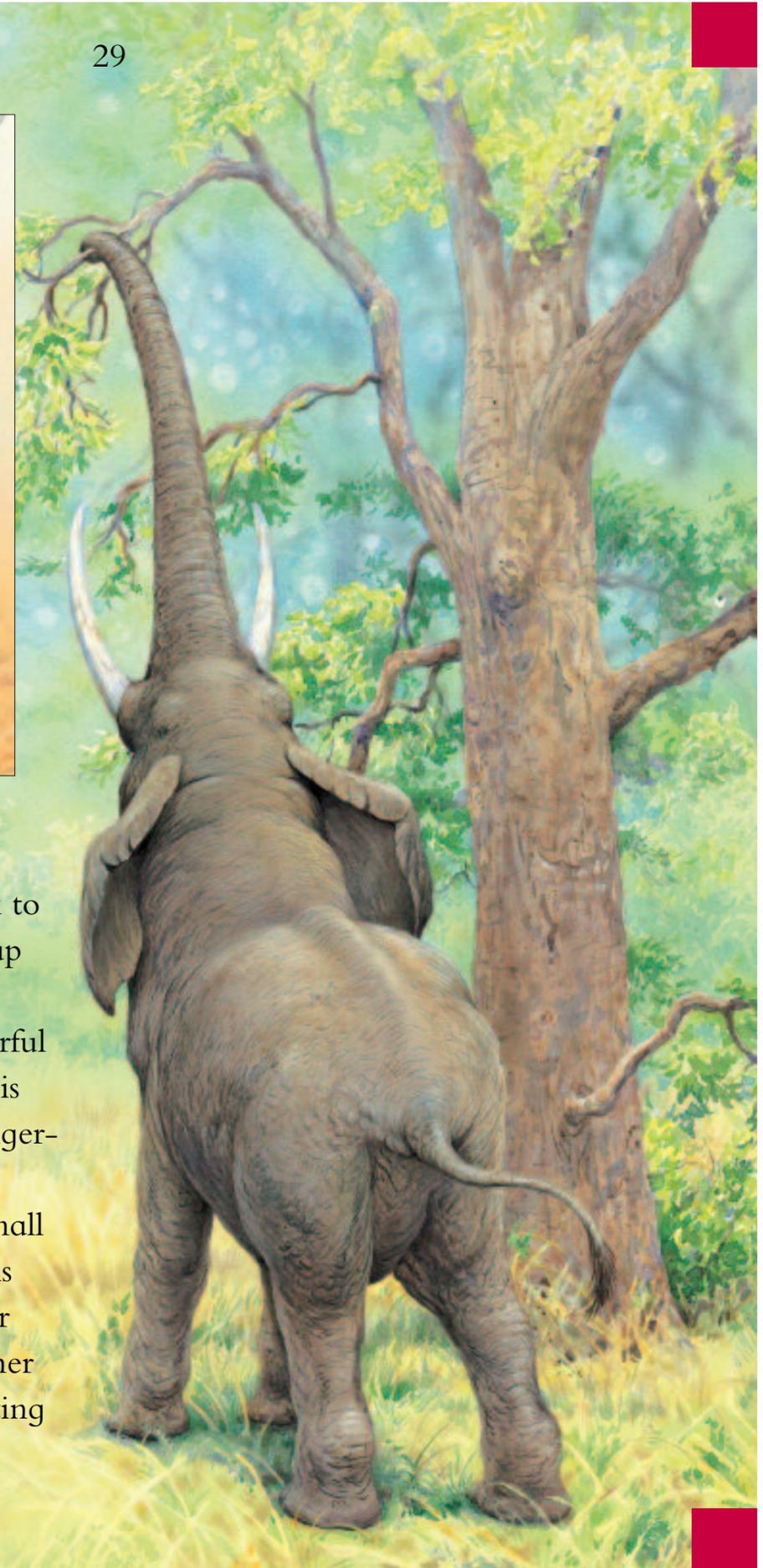
African elephant

Elephants drink by sucking up water in their trunk and squirting it into their mouths. They also spray water over their backs to keep cool.



USING ITS TRUNK

An elephant uses its trunk to pick off leaves or gather up fruits and put them in its mouth. The trunk is powerful enough to lift logs. But it is also very sensitive. The finger-like lips at the tip of the trunk can pick up very small objects (*above*). The trunk is also used to suck up water and as a dust sprayer. Other uses include sniffing, greeting and stroking.



APES AND MONKEYS

APES and monkeys, along with humans, belong to the group of mammals known as primates. Most primates are good tree-climbers. They have forward-facing eyes and large brains.

The orang-utan's hands have long fingers and short thumbs. The ape uses them to grasp branches as it swings from tree to tree in search of its favourite food – the durian fruit.



FIVE LIMBS

The spider monkey uses its long tail as a fifth limb to grasp branches as it swings through the rainforest trees.



TOOLMAKERS

Chimpanzees live in African rainforests and woodlands. They spend most of their time on the ground. They eat fruits, nuts and insects. Sometimes, they prey on other animals, such as monkeys and deer. Chimps live together in groups and defend their territory against other groups. Grooming one another helps to strengthen bonds between the chimps. Highly intelligent, they use sticks and stones as tools.



A chimpanzee pushes a twig into a termites' nest. Then it pulls it out, covered with termites to eat.



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