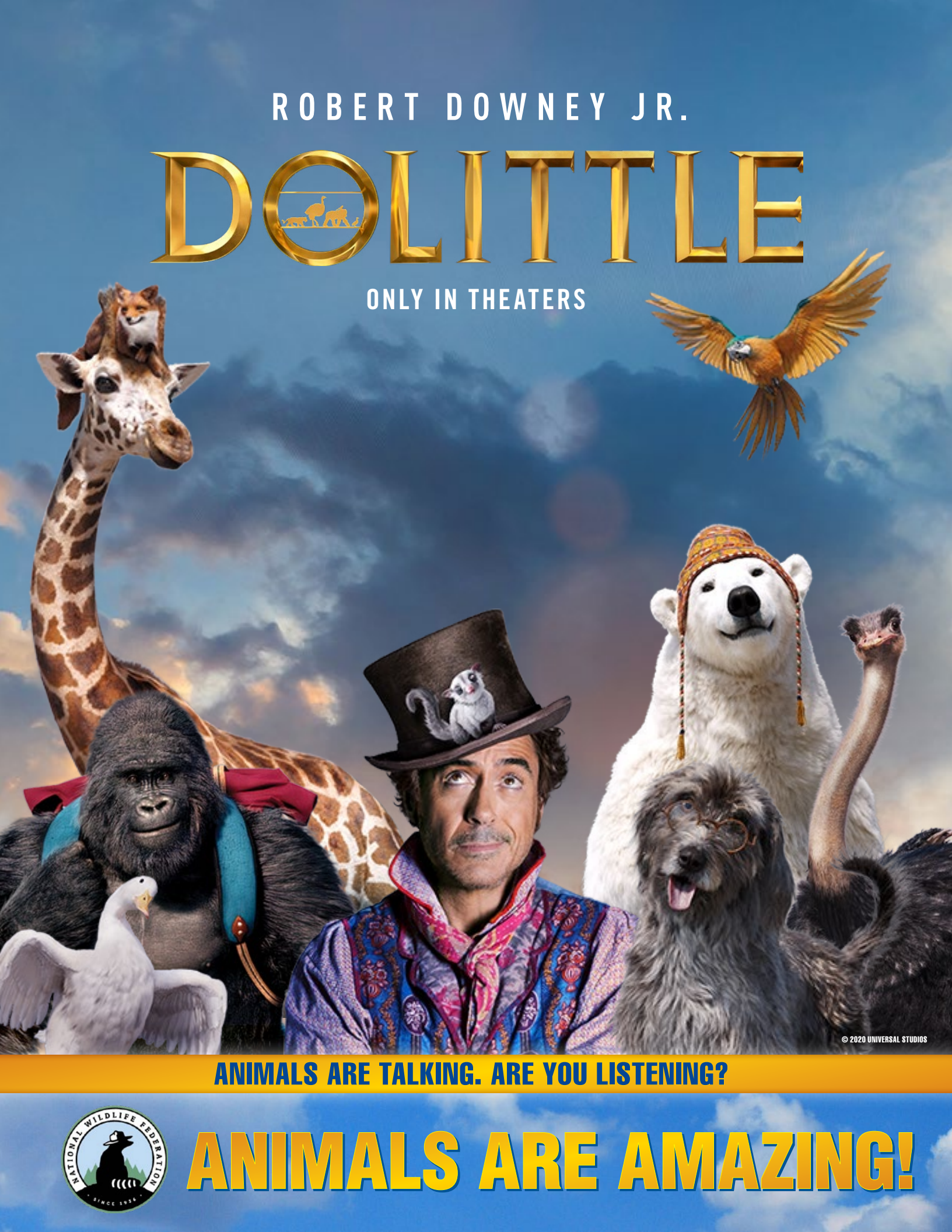
ROBERT DOWNEY JR.
DOLITTLE
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ANIMALS ARE TALKING. ARE YOU LISTENING?
NATIONAL WILDLIFE FEDERATION
SINCE 1936
ANIMALS ARE AMAZING!

Dolittle's characters are amazing animals! Each embodies many of the traits of their real life species.

Test your knowledge of the following amazing animal facts and learn how they communicate.

DID YOU KNOW?
GORILLA

African apes (gorillas, chimpanzees and bonobos) diverged from a common ancestor about 5 million years ago and belong to the family Hominidae.

Gorillas are one of our closest living relatives, after chimpanzees and bonobos. They share between 95% and 99% of our DNA!

Gorillas and chimpanzees walk quadrupedally (on all fours) and use their knuckles to carry the weight of their head and torso.

There are two different gorilla species (each with two sub-species). All species are endangered due to habitat loss and poaching amongst other threats.

Scientist have shown that gorillas display individual personalities.

Gorillas have been observed displaying emotions such as grief and compassion for other primates, including humans.

Gorillas live in fairly stable social groups comprising of one adult male usually referred to as the silverback (because of the silver hair on his back which signals full adulthood) and multiple females with juveniles and infants. When young males reach the age of 8-11 they will usually move away and either join another group or form their own.

Gorilla family groups each live within relatively small areas of land. Different groups can however occupy converging areas and co-exist peacefully.

Gorillas will groom each other by combing each other with their fingers and teeth. This 'social grooming' is an important aspect of gorilla groups which helps to establish and reinforce social bonds.

Gorillas are mainly herbivorous, with the majority of their diet consisting of leaves, shoots and stems, some fruit and sometimes grubs, caterpillars, snails, termites and ants.

Gorillas spend a good deal of their time on the ground rather than in the trees, and will make new nests on the ground each night.

Gorillas were seen for the first time using simple tools to perform tasks in the wild in 2005. They were observed using sticks to test the depth of muddy water and to cross swampy areas.

HOW DO GORILLAS COMMUNICATE?

GORILLAS COMMUNICATE IN A VARIETY OF WAYS, including facial expressions, sounds, postures and gestures. They have been known to make at least 22 distinct sounds to communicate different feelings, from playful chuckling to frightened screams — even belches of contentment. Gorillas are affectionate creatures..

WHEN THINGS ARE CALMER, GORILLAS OFTEN GREET EACH OTHER by touching their noses together, and will sometimes even give a reassuring embrace.

Because gorillas live in dense rain forest where group members often cannot see each other they use mainly vocalizations for communication.

FOR NEWLY BORN GORILLAS, vocalizations (whimpering, crying, screaming) are the most important means of attracting their mother's attention to their needs. As soon as the baby starts to move away from its mother, it starts to use grunting vocalizations. These sounds are the gorillas' most important vocalizations. They indicate the whereabouts of individual group members and can accompany social interactions. Group members probably recognize each other from these sounds.

BODY POSTURES AND FACIAL EXPRESSIONS also indicate the gorillas' mood. Certain behavior patterns involve certain body postures and often require another animal to do something. Postures signaling mood or intention to the partner are sometimes even used for communication over greater distances; this is particularly true for display behavior.

LIKE HUMANS, GORILLAS USE ALL SENSES
hearing, seeing,touching and smelling. Silverback males have a characteristic smell. In a dangerous situation, they additionally emit a very specific scent which can be smelled at many meters and which alarms the group without any noise.

DID YOU KNOW?
DUCKS

The duck is a number of species in the Anatidae family of birds. They are related to swans and geese.

Ducks are mostly aquatic birds living in both fresh water and sea water and found on every continent except for Antarctica.

A male duck is called a drake, a female duck a hen, and a baby duck a duckling.

Ducks are omnivores. They feed on aquatic plants, small fish, insects, worms, grubs and more. People often feed domesticated ducks bread.

Diving ducks and sea ducks search for food fairly deep underwater. To be able to stay underwater more easily, diving ducks are quite heavy.

Dabbling ducks feed on the surface of water, on land, or by ducking their head underwater. Along the edge of their beak is a comb-like structure called a pectin that enables them to hold slippery food and filter nutrients out of the water.

Ducks are curious and friendly creatures they have been domesticated as pets and farm animals for more than 500 years. All domestic ducks are descended from either the Mallard or the Muscovy.

The most common and recognized species of duck is the Mallard or Wild duck. It is a dabbling duck that lives in the Americas, Europe, Asia, North Africa, and has been introduced to New Zealand and Australia.

Mallard ducks live 5 to 10 years in the wild and 8+ years in captivity.

Some duck species often have one mating partner for life.

All ducks have highly waterproof feathers due to the feathers interlocking nature and waxy coating.

Female ducks are very caring parents, even before they lay their eggs. They use feathers from their breast, along with grass and leaves, to insulate their nests and keep the eggs warm and safe. Nests are built in a concealed location, and ducks usually have between 10–15 eggs, depending on species.

Most waterfowl fly at speeds of 40 to 60 mph, with many species averaging roughly 50 mph. With a 50 mph tail wind, migrating mallards are capable of traveling 800 miles during an eight-hour flight. Studies of duck energetics have shown that a mallard would have to feed and rest for three to seven days to replenish the energy expended during this eight-hour journey.

HOW DO DUCKS COMMUNICATE?

VOCALIZATIONS OF WATERFOWL ARE CONSIDERED CALLS rather than songs because they are short and instinctive in nature. Ducks use these vocalizations in a variety of situations as a primary means of conveying information.

MALES AND FEMALES OF MOST SPECIES OF WATERFOWL HAVE DISTINCTLY DIFFERENT CALLS because of physical differences in the trachea and the syrinx.

THE CALL REPERTOIRE OF WATERFOWL is somewhat limited; often the same call is used in a variety of circumstances. For example, the slow raehb-raehb-raehb call is used by the drake mallard to draw attention to himself for the purpose of attracting a mate, but this same call is also used to alert other mallards of the presence of a predator.

COMMUNICATION BETWEEN MEMBERS OF A SPECIES IS CRUCIAL TO SURVIVAL. Therefore, voice and hearing development in waterfowl begins early. As a hen sits on her nest, incubating her eggs, she exposes the embryos to her maternal call. Two days before hatching, the young are fully capable of hearing this call and begin to make their own vocalizations, which can be heard by the other unhatched ducklings. At this early stage, ducklings learn to identify the voices of their siblings, the specific call of their mother, and the repertoire of their species in general.

THE ABILITY OF THE DUCKLINGS TO RECOGNIZE and respond to the hen's call is essential to their survival during this vulnerable period in their life cycle. The first crucial test of their hearing and recognition capability-when the female calls to her young, encouraging them to follow her to food and water-occurs when the ducklings leave their nest. Response to this type of maternal call is best exemplified in wood ducks. The female wood duck calls to her ducklings from outside the nest cavity. This lets the ducklings know it is time to leave, and they must climb out of the nest to join their mother.

AFTER LEAVING THE NEST, it is imperative that the hen keep in contact with her young. A series of assembly and maternal calls from the hen and responding vocalizations from the ducklings keep the family unit together.

ADDITIONALLY, VOCALIZATION IS USED TO COORDINATE FLIGHT when preparing for migration, leaving a roost for feeding grounds, or escaping predators. Waterfowl often give a pre-flight call to signal their intent to change location. This vocal synchronization of their takeoff functions to keep mates, family members, and flocks together.

DID YOU KNOW?
OSTRICHES

The flightless ostrich is the world's largest bird.

Ostriches have three stomachs.

Ostriches are the fast runners of any birds or other two-legged animal and can sprint at over 70 km/hr, covering up to 5m in a single stride.

Ostriches' running is aided by having just two toes on each foot (most birds have four), with the large nail on the larger, inner toe resembling a hoof.

Ostriches' wings reach a span of about 2 meters and are used in mating displays, to shade chicks, to cover the naked skin of the upper legs and flanks to conserve heat, and as "rudders" to help them change direction while running.

When threatened ostriches run although their powerful, long legs can be formidable weapons, capable of killing a human or a potential predator like a lion with a forward kick.

Ostriches normally spend the winter months in pairs or alone and during breeding season and sometimes during extreme rainless periods they live in nomadic 'herds' of five to 50 birds led by a top hen, that often travel together with other grazing animals, such as zebras or antelopes.

Ostriches perform a complex mating ritual consisting of the male alternating wing beats until he attracts a mate.

All of the herd's hens place their eggs in the dominant hen's 3m-wide nest, though her own are given the prominent center place; each female can determine her own eggs amongst others.

The giant eggs are the largest of any living bird at 15cm long and weighing as much as two dozen chicken eggs, though they are actually the smallest eggs relative to the size of the adult.

Contrary to popular belief, ostriches do not bury their heads in the sand: the myth probably originates from the bird's defensive behavior of lying low at the approach of trouble and pressing their long necks to the ground in an attempt to become less visible. Their plumage blends well with sandy soil and, from a distance, gives the appearance that they have buried their heads in the sand.

In some African countries, people race each other on the back of ostriches with special saddles, reins, and bits.

The wild ostrich population has declined drastically in the last 200 years, with most surviving birds in game parks or on farms.

Lacking teeth, ostriches swallow pebbles to grind their food. An adult ostrich carries about 1kg of stones at any one time.

Ostriches can go without drinking for several days, using metabolic water and moisture in ingested roots, seeds and insects, but they enjoy liquid water and frequently take baths where it is available.

The ostrich has the largest eye of any land animal, measuring almost 5 cm across, allowing predators such as lions to be seen at long distances.

Ostriches are omnivores, which means they eat both vegetation and meat. Although they prefer plants — especially roots, seeds and leaves — they also eat locusts, lizards, snakes and rodents, according to the San Diego Zoo. They also eat sand and pebbles, to help grind up their food inside their gizzard, which is a small pouch where food is crushed and ripped up before it reaches the stomach.

HOW DO OSTRICHES COMMUNICATE?

THE OSTRICH HAS QUITE AN EXTENSIVE VOCAL REPERTOIRE, using a variety of whistles, snorts and guttural noises to communicate, as well as other sounds such as bill-snapping. The male also produces a loud "booming" call, which sounds rather like the roar of a lion and is produced during display, or at night when a predator is near.

DID YOU KNOW?
POLAR BEARS

POLAR BEAR FAMILIES

Polar bear cubs stay with their mother till they are 2 years old.

Polar bear mothers usually have two cubs, although sometimes they have one or three.

Polar bear cubs leave the den when they are three months old.

After they leave the den, cubs live out on the ice with their mother. During severe storms, the mother may make a temporary den in the snow.

Polar bear milk is high in fat content. It is the only food the cubs will have for a long time. They grow quickly and add a layer of protective fat to help them survive the cold.

Polar bear milk is some of the richest in the world, with 30-40% fat content. Human milk is only about 4% fat.

Once cubs are strong enough, they will follow their mother to hunting grounds from 30 to 100 miles away.

Once they are 4-5 years old, a female breeds once every 3 years.

Polar bears greet each other by clasping muzzles.

Polar bears are carnivores, which means they eat meat. Their favorite food is seals because the seals supply a lot of blubber. The bears need to eat blubber to build up their own layer of fat to survive in the Arctic.

Cubs can travel up to 12 miles per day.

Since there are three adult males to every breeding female, competition between males is fierce.

POLAR BEAR ADAPTATIONS

Polar bears spend as much time as possible on the sea ice looking for food. They spend months wandering across the frozen surface of the Arctic seas.

On the snow and ice, polar bears' large paws work like snowshoes. Even though they can weigh as much as a small car, they can walk on ice that is too thin for humans to cross.

Aside from mothers and cubs, polar bears are solitary animals that usually live and hunt alone.

Polar bears' long heads and muzzles, or noses, give them a very strong sense of smell. They can smell seals and other prey over three miles away.

Polar bears have massive legs that are useful for hunting but take a lot of energy to move. Their slow, lumbering walk helps conserve energy.

KNOW YOUR POLAR BEARS

Polar bear cubs love to play, often tumbling over their mother, but never getting too far from her.

Polar bears are the largest land predator in the world. Adult males can be 10 feet long and stand 13 feet high when on their hind legs. They can weigh as much as 1750 lbs.

While polar bears can appear to be pale yellow or snowy white, their hair is actually hollow tubes. The skin beneath is black.

HOW DO POLAR BEARS COMMUNICATE?

Polar bears communicate through body language, vocalizations, and scent markings.

HEAD WAGGING FROM SIDE TO SIDE: A sign that polar bears want to play. Adult bears initiate play—which is actually ritualized fighting or mock battling—by standing on their hind legs, chin lowered to their chests, with front paws hanging by their sides.

NOSE-TO-NOSE GREETINGS: How a bear asks another bear for something, such as food. The guest bear will approach slowly, circle around a carcass, then meekly touch the feeding bear's nose.

CHUFFING: A vocal response to stress, often heard when a mother bear is worried for her cubs' safety.

SCOLDING: Mother bears scold cubs with a low growl or soft cuff.

RUSHING: When a male approaches a female with cubs, she rushes toward him with her head lowered.

HISSING, SNORTING, LOWERED HEAD: Signifies aggression.

LOUD ROARS OR GROWLS: Communicates anger.

DEEP GROWLS: Signifies a warning, perhaps in defense of food.

CHARGING FORWARD, WITH HEAD DOWN AND EARS LAID BACK: Attack mode.

MOVING DOWNWIND OF DOMINANT BEARS: Signifies submission.

DID YOU KNOW?
PARROTS

Most of the 330 species of parrots live in tropical rainforest, but there are species that live in the desert, on the seacoast, and even in cold climates!

Of the more than 300 species of parrots in the world, nearly 100 are threatened in the wild, due to the illegal pet parrot trade and loss of habitat.

Cockatoos, macaws, parakeets and lorikeets are all part of the Parrot family.

Cockatoos have tall crests that are held flat against their back. If a bird is scared or excited, then the crest shoots up into the air!

Larger parrot species can be very long-lived, up to about 50 years, with most cockatoos living 40 to 60 years. Some can live over 100 years!

Red-winged parrots eat seeds from trees, usually by hanging upside down from a branch.

Macaws are the largest parrots in the world. The hyacinth macaw is the largest macaw and is about 3 feet long from tip to tail.

The smallest parrot is the buff-faced pygmy-parrot, at a little over 3 inches in length

PARROT FAMILIES

A mated pair will choose a nest – most parrots nest in holes in trees. Desert parrots nest in holes in cactus instead! Monk parakeets weave sticks into nests that can weigh hundreds of pounds, and often several families each have a hole in the nest – a parakeet apartment house!

Mom lays the egg – up to three – and stays inside with them till they hatch. Dad feeds her during the wait. Even after they're out of the nest and fully feathered, the young parrots are not able to take care of themselves, and stay with their parents till they can – sometimes months later.

Parrots often gather at water holes to drink and bathe together.

A mated pair will choose a nest – most parrots nest in holes in trees.

Even within the flock mates stay near each other. A parrot pair will sit side by side, eat together, and groom, or preen, each other.

Parrots live in large flocks. A flock of parrots can make a lot of noise squawking and chattering together!

PARROT ADAPTATIONS

Most parrots have powerful bills built for crushing nuts. They hold the nut up to their beaks and use the edges to saw and chisel away at the shell till they can pry it open and eat the nutmeat.

Parrots' first and fourth toes are turned backwards, so they walk funny, but they are great climbers.

Parrots pull themselves from branch to branch using their strong, curved beaks as well as their feet to hold on.

Bright colors may actually help camouflage parrots – by making them look like colorful flowers to predators!

Rainbow lorikeets eat the flowers, nectar, pollen and fruit of flowering trees, as well as seeds and insects. It laps up the flower pollen and nectar with its bristly tongue.

HOW DO PARROTS COMMUNICATE?

OF ALL THE CREATURES ON EARTH, ONLY TWO CAN PRODUCE HUMAN LANGUAGE: humans…and birds. Of the few birds that can imitate human speech, including mynah birds, crows, and ravens, parrots are clearly the best at it—they give "TED "talks, speak multiple languages, and even front heavy metal bands. So why can parrots talk when our closer primate relatives cannot?

PARROTS ARE VOCAL LEARNERS, meaning they grasp sounds by hearing and then imitating them. Although several other bird species can discern and repeat sounds, parrots are the pros.

BUT WHY DO THEY COPY HUMAN SPEECH? Peer pressure, it turns out. Parrots naturally try to fit in, be it among other parrots or other people.

IN THE WILD, PARROTS USE THEIR VOCAL PROWESS TO SHARE important information and fit in with the flock, says Irene Pepperberg, a research associate and part-time lecturer at Harvard. Pepperberg is best known for her work probing the intelligence of an African Grey Parrot called Alex, who lived in Pepperberg's lab for 30 years, until his death in 2007. "A single bird in the wild is a dead bird; It can't look for food and look for predators at the same time," Pepperberg says—but in a flock they can trade off responsibilities.

PARROTS ARE EVEN CAPABLE OF LEARNING AND USING VARYING DIALECTS.

DID YOU KNOW?
GIRAFFES

A giraffe can grow up to 19 feet tall--taller than any other animal in the world. Its neck alone can be eight feet long! But it has only seven neck bones--the same number you have.

A baby giraffe is only six feet tall at birth-as tall as a grown man.

Giraffes also use their necks to tell each other how they feel. For example, when a giraffe is angry, it will lower its neck until it's almost level with the ground. But when it wants to say "I give up--you're the boss!" it stretches its neck up and raises its nose in the air.

Giraffes eat leaves and can reach branches 19 feet from the ground.

A giraffe's tricky tongue is up to 18 inches long. It's so long the giraffe can use it to clean its nose!

Scientists recently discovered that giraffes can make sounds that are too deep for humans to hear. But humans can hear some giraffe sounds like moo, roar, snort, and grunt. Plus, they burp!

Adult giraffes have very few enemies. (Would YOU try to attack something that big?) Hungry lions and hyenas may try to snatch an adult drinking at a waterhole. But more often they go for young giraffes. If the predator comes close, they kick! The blow from a giraffe's hoof can easily knock out or even kill a lion.

Giraffes are the tallest mammals on Earth. Their legs alone are taller than many humans—about 6 feet.

They can run as fast as 35 miles an hour over short distances, or cruise at 10 mph over longer distances

A giraffe's neck is too short to reach the ground. As a result, it has to awkwardly spread its front legs or kneel to reach the ground for a drink of water.

Giraffes only need to drink once every few days. Most of their water comes from all the plants they eat.

Giraffes spend most of their lives standing up; they even sleep and give birth standing up.

A giraffe's spots are like human fingerprints. No two individual giraffes have exactly the same pattern.

Both male and female giraffes have two distinct, hair-covered horns called ossicones. Male giraffes use their horns to sometimes fight with other males.

Giraffes only need 5 to 30 minutes of sleep in a 24-hour period! They often achieve that in quick naps that may last only a minute or two at a time.

Whilst it was thought that giraffes did not make any sounds, this is now known to be untrue, as giraffes bellow, snort, hiss and make flute-like sounds, as well as low pitch noises beyond the range of human hearing.

HOW DO GIRAFFES COMMUNICATE?

GIRAFFES HAVE EXCELLENT VISION, so their primary means of communication is thought to be visual signals during daylight hours. As prey animals, it also makes sense that they might not want to make loud noises that can attract the attention of predators. But when vision is impaired at night, low frequency humming might be a great way to make sure the herd stays together.

MOTHER GIRAFFES SOMETIMES USE WHISTLES TO WARN OR CALL THEIR YOUNG.

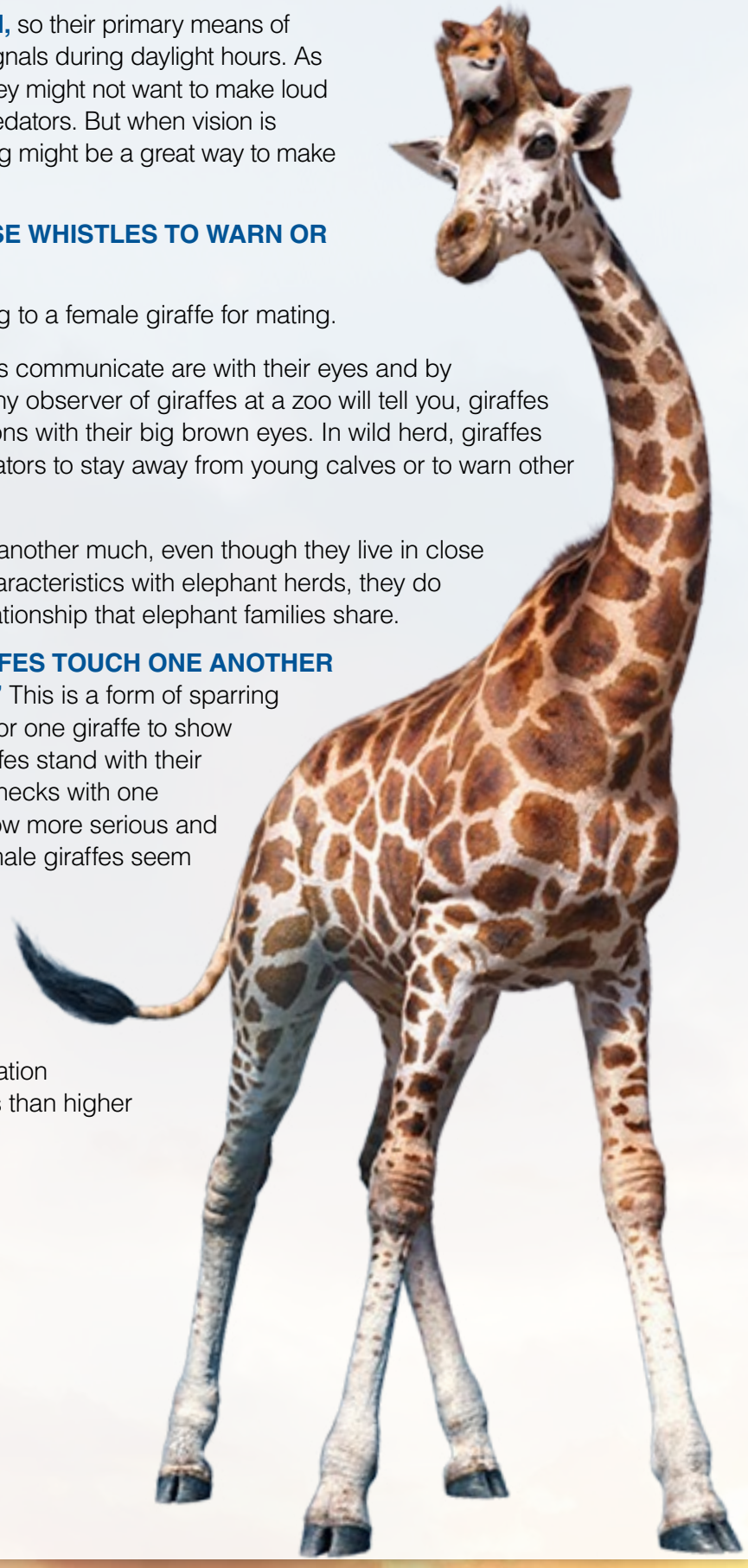
MALE GIRAFFES COUGH when calling to a female giraffe for mating.

WITH THEIR EYES: Other ways giraffes communicate are with their eyes and by touching other giraffes in the herd. As any observer of giraffes at a zoo will tell you, giraffes can communicate many different emotions with their big brown eyes. In wild herd, giraffes may use prolonged stares to warn predators to stay away from young calves or to warn other herd members of danger, for example.

TOUCHING: Giraffes do not touch one another much, even though they live in close proximity. Although they share some characteristics with elephant herds, they do not share the touchy-feely close-knit relationship that elephant families share.

ANOTHER OCCASION WHEN GIRAFFES TOUCH ONE ANOTHER IS IN A RITUAL CALLED "NECKING." This is a form of sparring between male giraffes. The purpose is for one giraffe to show dominance over the other. The two giraffes stand with their feet spread apart and wrap or rub their necks with one another. The dominance dance may grow more serious and rough at times. At other times, the two male giraffes seem to lose interest and just walk away.

INFRASONIC COMMUNICATION simply means that giraffe's talk to one another with sounds that are extremely low pitched, low frequency. One of the distinct features of infrasonic communication is that it can travel over longer distances than higher pitched sounds.



DID YOU KNOW?
RED FOXES

Red foxes can run up to 31 mph, jump over 6 ft high fences and can even swim.

Its tail is over half its body length. (70% of its head and body length long, to be exact.)

Red foxes' forepaws have five toes, while their hind feet only have four! (And they don't have dewclaws either.)

Females are actually called vixens. Males are called dog foxes, and young foxes are called cubs, pups, or kits.

Red foxes can hear crows in flight from up to a third of a mile away, a grouse changing roosts at 600 paces, and even a little mouse squeak from 100 meters away. Reportedly, they can even hear a watch ticking from 40 yards away!

Largely, red foxes are choose one mate to be with for their whole life. That's right, they are monogamous.

When afraid, red foxes grin. It is a sign of submission, along with arching their backs and bringing themselves lower to the ground while laying their ears back.

A fox's den is normally a burrow underground, also known as an 'earth', but they can also live above ground in a hollow.

While they are solitary animals, during breeding season (winter) when they court and mate, the dog fox (male) will support the female (vixen) by bringing food for the family (early spring).

You can often hear the mating calls, which is a sharp, high-pitched shrieking/screaming noise.

Vixens are occasionally assisted in rearing their cubs by a non-breeding sister or a female cub from a previous litter. These 'aunts' gain valuable experience which helps them to rear their own litter successfully the next season. Occasionally, there can be two dog fox's associated with one vixen.

The cubs' eyes and ears open after two weeks, and at four weeks, they will emerge from their dens. They have short noses which resemble puppies when born.

They catch small rodents with a characteristic high pounce. This technique is one of the first things cubs learn as they begin to hunt.

Foxes belong to the dog family, which includes wolves, coyotes, grey foxes, raccoon dogs and their relatives. All members of this family are incredibly adaptable animals, and this makes them successful colonizers in many areas of the world, practically in all habitats available and often in close proximity to humans.

Foxes are great night-time predators because their eyes are specially adapted to night vision. Behind the light sensitive cells lies another layer called the tapetum lucidum which reflects light back through the eye. This doubles the intensity of images received by the fox. Their eyes glow green when light is shone into them at night.

A fox's range varies from 25 acres in cities to over 5000 acres in rural areas.

They were introduced to Australia in the mid-19th century and are native to Europe, Asia and North Africa.

Foxes have whiskers on their legs as well as their faces, which they use to help them find their way.

Foxes have also been known to climb trees and settle on low branches.

HOW RED FOXES COMMUNICATE?

FOXES COMMUNICATE WITH EACH OTHER WITH GROWLS, YELPS, AND SHORT YAPPING BARKS. It also makes scent stations by urinating at various spots to tell foxes in the area that another fox is present.

USING THEIR KEEN HEARING and an excellent sense of smell they can hear a mouse squeak over 100 feet away and will frequently dig in the dirt or snow to catch prey.

POSTURE: Foxes communicate with each other in a variety of ways. As in the domestic dog and many other carnivores, many different facial expressions and body postures are used. Friendly greetings such as tail wagging are used when meeting family members, and aggressive behavior may be directed towards intruding neighboring foxes.

SOUND: Foxes are mostly silent animals but this does not mean they do not have a broad repertoire of sounds. A wide range of calls is used from cubs' small barks asking for their mother's attention, to warning calls, to barks and screams performed to locate another fox or a mate.

SMELL: Urine and feces are used to communicate to other group members and to neighboring foxes. For example, urine is used to mark their home range (the space where an animal lives) and both urine and feces are used to signal some specific state, such as when females are fertile. The use of smell to communicate information to other animals is called scent marking. Feces in particular are placed in conspicuous spots where they can easily be found by other foxes, such as on objects, paths, gates or even on food remains.

FOXES ALSO POSSESS VARIOUS SCENT glands on their tail, faces, foot pads and just inside their anus. They can either rub themselves or expel the contents of the glands against some objects. They also use their saliva to mark objects, particularly vegetation.

SENSES (SPECIFICALLY FOR HUNTING): Their acute hearing is used to hunt small mammals and insects, for example by locating a mouse by the sounds it makes and then pouncing up to 2-3 meters to catch it. Smell is used to communicate but also to locate food. Foxes can detect food in a sealed bag or buried underground.

DID YOU KNOW?

SUGAR GLIDERS

These marsupials are able to glide up to 45 meters (148.5 ft.) and have been observed to leap at and catch moths in flight.

Sugar gliders live in large colonies of 20 to 40 individuals with two alpha males fathering the majority of offspring.

Young gliders usually leave around 10 months to start their own colonies.

Sugar gliders get their name because of the specialized flap connecting the front leg to the hind leg, giving them the ability to glide.

When angry, gliders lean back and make a chattering noise that resembles a small, yapping dog. If this warning doesn't work, they strike with full force.

Sugar gliders have opposable thumbs and four fingers on both hands and feet. Each finger has a sharp toe that can hook like Velcro to most non-slick surfaces.

Females have a pouch on their belly in which they raise their young for 10 weeks after birth.

They are excellent "aviators," thanks to their wide field of vision—and they can triangulate distances and glide ratios by bobbing their head before launch. Once airborne, they steer toward their target by tilting their hands and arms, adjusting the tension in their "wings," and using their long, flat, bushy tail as a rudder.

While named for their penchant for eating forest sweets like acacia gum, eucalyptus sap, and flower nectar, sugar gliders are actually omnivorous opportunistic feeders, consuming both plant and animal matter.

Nice nest. Sugar gliders inhabit wooded areas with open forest. They are arboreal, finding safety, shelter, and food above the ground. They shelter by day in cozy leaf nests constructed in tree hollows. They mark and protect their territory, which can include over two acres of forested land with rine and secretions from various glands make effective "fences."

Sugar gliders are nocturnal, snoozing through the day until night falls, then they begin using their leap-glide-grab means of getting food. During periods of frigid cold or unavailable food, sugar gliders may lapse into torpor for up to 16 hours per day to conserve energy.

HOW DO SUGAR GLIDERS COMMUNICATE?

THIS HIGHLY SOCIAL, NOCTURNAL SPECIES HAS A COMPLEX CHEMICAL COMMUNICATION SYSTEM based on scents produced by frontal, sternal, and urogenital glands of males and by pouch and urogenital glands of females. Each animal has his and her own signature scent, which enables others to recognize it. However, the dominant male also actively marks his group members with his saliva, and by using scent glands on his chest and forehead. That's a sure way to tell if an animal belongs in the colony or not.

SUGAR GLIDERS ALSO COMMUNICATE USING A WIDE VARIETY OF YAPPING, BARKING, BUZZING, DRONING, HISSING, AND SCREAMING SOUNDS. One is called "crabbing," which they make when frightened, threatened, or woken from a nap. They make a barking noise when communicating with other gliders (or you). A sugar glider may hiss, and the duration and context of the call mean different things, like acknowledging another glider or telling it to get out of the way. When contented, the glider may make a purring sound, which is softer than a cat's purr.

DID YOU KNOW?

RED SQUIRRELS

Red squirrels are not always red; sometimes they can be black, brown or even white in color.

Baby red squirrels are called kittens.

Red squirrels can swim and hang upside down!

They can live to six years of age.

Reds don't hibernate; in winter they rely on food that they have previously buried and they can locate their food supplies in over 1 foot of snow.

While we all imagine squirrels munching merrily on nuts or acorns, the red squirrel's diet is much more varied than those singular items. True, their main source of nutrition comes from some nuts and the seeds from pine cones. But, by definition, red squirrels are omnivores, and their diets flowers, berries, mushrooms, bugs, mice, eggs, and small birds.

Red squirrels store their food. Using tree cavities, underbrush piles, or dens as their own pantries, red squirrels can ensure that the food they've gathered for the winter will be kept safely and out of the way of trespassers. Before storing mushrooms that they've foraged, red squirrels have been known to lay them out to dry on tree branches.

Red squirrels are feisty and territorial towards intruders. Confrontation between two red squirrels often entails a lot of tail flicking, chattering, and foot stomping. Though these actions may seem adorable to us as onlookers, it can mean that things are getting heated in a squirrel argument.

There's a reason why a red squirrel's tail is so big and bushy: when it's not being flicked around to intimidate a rival, the tail of a red squirrel is primarily used for balance as the animal jumps from tree to tree in wooded areas. With a tail that measures to be about half the size of an average red squirrel (six and 12 inches, respectively), half of the animal's body's length is devoted to helping it keep balance and intimidating other squirrels.

Red squirrels are mostly active during the day, but sometimes at night too. In the fall, they are gathering food for the winter all day.

HOW DO RED SQUIRRELS COMMUNICATE?

Red squirrels have excellent senses of smell, sight, and hearing. **THEY OFTEN CALL TO EACH OTHER, MAKING NOISES LIKE RATTLES, SCREECHES, GROWLS, BUZZES AND CHIRPS.** These noises are very important for defending their territory. They are also used to drive away other males competing for mates. Red squirrels may even be able to recognize each other by their calls. Often they make a different call for predators in the air compared to predators on the ground, but scientists aren't sure about this. Red squirrels also recognize each other through scent marks, which is important because its less noticeable to predators and can avoid unneeded fights between neighbors.

RED SQUIRRELS MAKE ALARM CALLS WHEN THERE ARE PREDATORS NEARBY. They make a call with a high frequency when they notice flying predators and a barking call when they notice land predators. They are difficult for predators to catch because they are quick on their feet and can escape into tree cover. They are fairly aggressive and defend themselves if needed.

(Digweed and Rendall, 2010; Greene and Meagher, 1998; Ruff and Wilson, 1999; Stuart-Smith and Boutin, 1995; Wirsing, et al., 2002)