





E STORY

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First steps

There are nine subspecies of tiger (Panthera *tigris*), but three are now thought to be extinct. Tigers originally ranged across Central and Southern Asia, but their range is shrinking and is now just 7% of what it was 100 years ago.

Growing up

When young female tigers leave the protection of their mother, they establish their own territory close by. With time, the overlap in range between mother and daughter decreases. Young males usually wander much further from their natal territory.

Young males, if possible, seek out a new area

Home

Territorial ranges differ among the subspecies of tiger, but generally a tigress needs a 20 km² territory, whereas a male needs a much larger area, covering 60 to 100 km². Human presence and activities restrict the habitat and prey available to tigers.

Tigers live alone, often in areas with dense

Power

There are big differences in size between the subspecies of tiger. The largest tigers (Siberian or Amur) are found in North-East Russia and weigh up to 300 kg. The smallest tigers are those that still survive in Sumatra, which weigh up to 120 kg.

Tigers range widely in search of prey, which includes antelope, deer or wild cattle, which they stalk and then grasp, generally from behind. They have the largest canines of all big cat species which are used to sever the neck of their prey. The carcass is hauled away into cover, and even prey that weigh more than the tiger can be dragged some distance. The meat on a large animal may provide the tiger with food for more than one day, so the carcass may be hidden if left for a time.

Courtship

As tigers are territorial and solitary, males and females only interact when mating. A few days before the female is ready to mate she scent-marks her range with distinctivesmelling urine and may begin to vocalise to attract a male.

Courtship begins with the pair circling each other and vocalising, the male making a purring sound to indicate his interest. The female is cautious and may react aggressively to the male's initial advances by snarling and showing her canines. Gradually, she invites him to mate by rubbing herself against him and squatting on the ground in front of him. Mating is brief but can occur up to 20 times a day. Several days of mating may be required before the female is pregnant. After mating, the male leaves and takes no part in raising the young.

Parenthood

Female tigers mate every 18–24 months in prolific breeding sessions with the dominant male. At birth cubs are blind and helpless, and about half the cubs do not survive to adulthood. Tigers live for 10-15 years in the wild. All the subspecies are endangered.

There are no accurate estimates of the world tiger population but numbers are thought to have fallen from 100,000 to the current estimate of possibly as few as 3200 individuals since the turn of the 20th century. Even in India, the species' stronghold, there may be as few as 1700 tigers left. This is mostly due to habitat destruction, hunting for trophies and the use of body parts in Chinese traditional medicine. Encroachment of human settlements into tiger territory results in human conflict, further reducing numbers.

Mating can occur at any time of the year in the tropics but in temperate areas it is restricted to the winter months. The cubs are born after four months gestation. The average litter size is three. At birth the cubs are blind and virtually helpless, but they grow fast and are ready to learn to hunt after about six months. They remain with the female for 15 months or more, before leaving her to establish their own territories, although several years will pass before they reach sexual maturity and seek out a mate.

that does not contain other tigers which they may come into conflict with. Otherwise they survive in another male's territory until they are large enough and strong enough to challenge the resident male. About one-third of young male tigers die, and many are injured in territorial disputes with resident males as they seek to establish their own home range in the wilderness. Males reach sexual maturity later than females, at four to five years old.

Adult tigers may weigh about 200 kg but are still remarkably agile climbers, easily negotiating rocky terrain. This Bengal tiger is taking advantage of a

high look out position to spot other tigers in the

area, or leopards from whom it could steal a kill.

vegetation where they are well camouflaged and which contain a body of water in which they swim proficiently. Territorial disputes often involve displays of intimidation before any combat. Male tigers are less tolerant than females of other tigers entering their territory. However, once dominance has been established, males will allow subordinates in their territory, unless there is a female in oestrus present. Males use the flehmen response to sniff urine deposited by receptive females.

This Bengal tiger is a stealth hunter, relying on its camouflage to get close to its prey. Males range

widely in their territory and leave silent marks of

scent as they patrol their domain.

their recent presence, clawing trees and spraying

Tigers are sexually dimorphic, the male being about 1.5 times larger than the female. Males also have a facial ruff and much larger paws. Markings above the eyes are unique to individuals. The marks on the tiger's forehead resemble the Chinese character for 'king'.

The tigress protects her vulnerable young and teaches them how to survive. This Bengal tiger cub and any siblings become their parents' legacy, as the father holds the territory secure from other mature males who would otherwise kill any resident young prior to fathering their own.

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The coat colours of the Sumatran tigers in the

photograph are very striking. However, in the forests where they live, their body outline is

disrupted by the stripes and colour changes of the

coat, providing superb camouflage in the dense

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Unlike most other cats, tigers are powerful swimmers, crossing rivers and estuaries with ease, as well as being able to swim several miles in the

sea. On land they can reach speeds of over 48 km

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Humpback whale Megaptera novaeangliae

Type of feeder: filter feeder Diet: krill and small fish Lifespan in wild: 77 years (average Size: length of 13–14 m; 215–16 m Weight: 7 25-30 tonnes

Gender symbols: Male♂ Female♀

Did you know?

Humpbacks undertake longer migration journeys than any other mammal - the longest distances recorded are over 8000 km. Their summer feeding grounds are in the polar regions but they breed in the warm waters of the tropics.

The gestation period is nearly a year. When born in the tropics, a calf weighs 1–2 tonnes. Calves stay with their mothers for 11 months or more, so accompany their mother for the first round trip to the summer feeding grounds. Humpback young are at risk from orcas, so giving birth in the tropics may be linked to predator avoidance.



Migration: summer winter



First steps

Diet: invertebrates, eggs, small vertebrates _ifespan in wild: 6–7 years (estima Size: ♂♀body length 24–29 cr **Weight:** ♂♀620–969 g

Type of feeder: omnivore

Did you know?

Although meerkats live in large groups, generally the only breeding members are the dominant male and female.

Gestation takes 77 days and 2-5 young are born. They are cared for, co-operatively, by the group in their burrow. At around four weeks the young join the foraging trips and are helped to feed by group members. The young mature at around one year and, soon after, males will either leave the group to form a new one or evict a dominant male from an existing group. Females may leave and form a group, but don't join an existing one.





Weaver ant Oecophylla smaragdina

Type of feeder: insectivore Diet: small insects and their oneydew secretions ifespan in wild: a few months o years **Size:** \bigcirc \bigcirc length up to 10 mm **Weight:** \bigcirc \bigcirc \bigcirc a few milligrams

Did you know?

Weaver ants are great architects that use larval silk in the construction of their elaborate and extensive nests in the trees.

They are found across Asia and Australia and are highly territorial, defending their home nests. Although they don't sting, they can bite and spray formic acid into the wounds. Weaver ants protect the trees and shrubs they live on from insect pests and are used by humans to protect crops from other insects. They are then harvested along with their larvae for food, both for humans and insectivorous birds.



Weaver ant range

Arctic fox Vulpes lagopus

Growing up

Type of feeder: carnivore, scavenger Diet: small mammals, birds, eggs **_ifespan in wild:** up to 5 years (average 30 months) Size: ♂♀body length 85 cm Weight: ♂3.2-9.4 kg; ♀1.4-3.2 kg

Did you know?

Arctic foxes are circumpolar in their range and are well adapted to cold Arctic conditions that can reach -40 °C.

Foxes living along the coast feed on marine birds, eggs and carrion, a relatively stable food source. Inland foxes feed predominantly on fluctuating lemming populations. Arctic foxes hunting lemmings are capable of long migrations of 1000 km over the polar ice pack. Reproductive effort is timed with peaks in prey population. Study of fox scats (faeces) reveals prev variety: lemmings ~85%, then birds, reindeer, voles, shrews and hares.



Type of feeder: omnivore Diet: primarily nectar but also smal piders and insects

ifespan in wild: unknown Size: ♂12–15 cm including tail 7.5 cm); ♀7.5–9 cm **Weight:** ♂ ♀2.6–3.2 g

Did you know? Booted racket-tail hummingbirds are found in montane forest on the east slopes of the Andes, at elevations of between 1000–4000 m.

Besides insects, hummingbirds have the highest metabolic rate of any animal on earth. Because of this, they require frequent feeds and may visit up to 1000 flowers each day. They prefer flowers with high sugar content, vigorously defending a feeding territory from other birds and large insects. They conserve energy at night by entering torpor, allowing their body temperature to drop from about 45 °C in the day to around 19 °C.



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Home



Booted racket-tail Ocreatus underwoodii



Hermit crab Coenobita clypeatus Type of feeder: omnivore, scavenge

Diet: animal and plant remains, overripe fruit, faeces of other animals Lifespan in the wild: 5–15 years Size: \bigcirc shell width: 6.5–82.7 mm **Weight:** ♂♀0.3 g−140 g

Did you know?

Land hermit crabs use the shell of the West Indian top snail (Cittarium pica) as their home. Their left claw is larger than the right and is used to cover the shell opening as protection against predators.

As the crab grows, they must find a larger shell to accommodate their body. Hermit crabs make use of 'vacancy chains' to do this. A single vacant shell triggers a sequential chain of crabs switching to newly vacated shells. The largest crab moves into the new shell, leaving its shell available for the second biggest crab, and so on.



Hermit crab range



Eastern grey kangaroo Macropus giganteus

Type of feeder: herbivore **Diet:** grasses, shrubs Lifespan in the wild: 8–10 years

Did you know?

With their long back legs and powerful hindquarters, grey kangaroos are capable of sustained hopping at speed. Their ankle joint is specially adapted to resist twisting, and a proportion of the energy of each hop is stored in tendons and recovered elastically.

Grey kangaroos usually live in social groups of up to 10–50 individuals, known as mobs, formed around a matriarch. When females are fertile, a dominant male will be part of the group but will depart when the females are out of season. Males may form loose groups in winter, but



Eastern grey kangaroo range



Bald eagle

Power

Type of feeder: piscivore, carnivore Diet: fish, waterbirds, mammals Lifespan in wild: up to 40 years Size: wingspan 1.8–2.3 m height ♂76–86 cm; ♀89–94 cm Weight: ♂2.7-4.1 kg; ♀4.5-6.8 kg

Did you know?

Flying bald eagles have been recorded holding extremely heavy loads (e.g. 6.8 kg deer fawn) and their gripping power is 10 times greater than that of humans.

When hunting over water sea eagles swoop to snatch fish from below the surface with their powerful talons. If their catch is too heavy, they may be dragged into the water. When eating, one claw is used to hold the fish, aided by specialised spicules (spines) and the other claw is used to tear off flesh to eat, as they do not chew. Occasionally, bald eagles may hunt cooperatively in small groups.

Migration: summer winter

Peacock spider Maratus volans

Type of feeder: carnivore Diet: insects and spiders **_ifespan in wild:** unknowr

Weight: $\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$ a few milligrams

Did you know?

To impress a female, a male peacock spider performs a 'courtship dance', raising his colourful abdomen vertically and extending his abdominal flaps. The resulting white-fringed ring of colour resembles a peacock's tail.

When approaching a female the male spider dances from side to side vibrating his abdomen and waving his white-tipped third pair of legs. Some courtship displays end in success and the female allows the male to mate. However, if the female is unimpressed by the male's display she may eat him before moving on to assess another male.



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old males are usually solitary.





Haliaeetus leucocephalus

Courtship



Japanese macaque Macaca fuscata

Type of feeder: omnivore Diet: fruit, leaves, nectar, eggs,

insects, grain, nuts, seeds, flowers Lifespan in wild: ♂12–28 years; 20-32 years Size: height ♂ 57 cm; ♀52 cm **Weight:** ♂ 11 kg; ♀8 kg

Did you know?

A key feature of reproduction is consortship where a male and female mate, feed, rest, and travel together for one to several days during the mating season which lasts for four to five months.

Females may enter relationships with more than one male and, although these males may be of any rank, mating is more common with highranking males and consortships are longer. Females have two types of mating calls but males do not vocalise during mating. Females may also mate with non-troop males who enter the group during the mating season.



Japanese macaque range

Parenthood



Green sea turtle Chelonia mydas

Type of feeder: herbivore Diet: sea grasses and algae Lifespan in wild: more than 80 year Size: ♂ ♀length 1.5 m Weight: ♂ ♀up to 315 kg

Did you know?

The adult green sea turtles spend most of their time at sea, the females coming ashore only to lay eggs in sand. Lower temperatures lead to a male while higher temperatures lead to a female. The eggs hatch in 45-70 days.

Young turtles make their way to the top of the sand and scramble to the water while trying to avoid predators. Very few young survive. Initially, they feed on crustaceans, jellyfish and small fish but the adults graze only on vegetation. Development is verv slow - sexual maturity occurs between 26 and 40 years of age.





African bush elephant Loxodonta africana

Type of feeder: megaherbivore Diet: grasses, seeds, plants and tree bark Lifespan in wild: up to 65 years Size: shoulder height ♂ 3.2-4.0 m **♀2.2–2.6 m** Weight: ♂4,700-6,048 kg ♀ 2,160–3,232 kg

Did you know? Elephants have the longest gestation of all mammals taking up to two years to produce a single calf. Each lactation period lasts up to two years and young reach maturity at ~10 years old.

Very slow embryonic growth allows elephants to develop the intellectual capacity required for survival over many years within a complex social structure. Elephants are a keystone species within the ecosystem. They rearrange the habitat structure by uprooting trees, and many seeds germinate after transit through their digestive system, and faeces mounds become compost for new plant life.



African elephant range



