



## Tiger (*Panthera tigris*)



<b>French:</b>	Tigre
<b>Kingdom</b>	Animalia
<b>Phylum</b>	Chordata
<b>Class</b>	Mammalia
<b>Order</b>	Carnivora
<b>Family</b>	Felidae
<b>Genus</b>	<i>Panthera</i> (1)
<b>Size</b>	Smallest living subspecies - Sumatran tiger: 100 - 150 kg (2) Largest living subspecies - Siberian (Amur) tiger: 180 - 300 kg (2)

### Top facts

- The tiger is one of the largest of the big cats, and the only cat with stripes.
- Much like a human fingerprint, no two tigers have the same stripe pattern.
- Mainly hunting wild pigs and deer, the tiger is also capable of taking prey much larger than itself, including small elephants and rhinos.
- Unlike most other cat species, the tiger is a keen swimmer and often cools off in streams and lakes to escape the midday heat.
- Nine subspecies of tiger are recognised, sadly including three which are already extinct: the Bali, Javan and Caspian tigers.

## STATUS

The tiger is classified as Endangered (EN) on the IUCN Red List (1) and is listed on Appendix I of CITES (3).

**Subspecies:** the South China tiger (*Panthera tigris amoyensis*) and the Sumatran tiger (*Panthera tigris sumatrae*) are classified as Critically Endangered (CR); the Siberian tiger (*Panthera tigris altaica*), the Indochinese tiger (*Panthera tigris corbetti*), the Bengal tiger (*Panthera tigris tigris*) and the Malayan tiger (*Panthera tigris jacksoni*) are classified as Endangered (EN). The Bali (*Panthera tigris balica*), Javan (*Panthera tigris sondaica*) and Caspian tigers (*Panthera tigris virgata*) are all classified as Extinct (EX) (1).

## DESCRIPTION

One of the largest of the 'big cats', the tiger (*Panthera tigris*) is an instantly recognisable animal and an iconic symbol of conservation. Nine different **subspecies** of this charismatic **carnivore** are recognised, three of which became extinct in the latter part of the 20th century: the Bali (*P. t. balica*), Javan (*P. t. sondaica*) and Caspian tigers (*P. t. virgata*). The remaining **subspecies** are the Siberian (*P. t. altaica*), South China (*P. t. amoyensis*), Sumatran (*P. t. sumatrae*), Indochinese (*P. t. corbetti*), Malayan (*P. t. jacksoni*) and Bengal tigers (*P. t. tigris*) (4).

Readily distinguished from other large felids as the only striped cat, the tiger generally has a distinctive reddish-orange to yellow-ochre coat with a white belly and black markings (2). The characteristic dark, vertical stripes patterning the body vary in their width, spacing, and length, and whether they are single

or double stripes (5). The pattern and distribution of the stripes is unique to each tiger (2), with no two individuals exhibiting the same stripe pattern (5).

The tiger's chest, throat, muzzle and the insides of its limbs are white or creamy, and there is usually a white area above the eye which extends onto the cheeks. A white spot is also often present on the back of the ears (5), and the male tiger usually has a prominent ruff on the head (2). The long tail is ringed with prominent dark bands (5).

The different **subspecies** vary in their body size, coat colour and markings, with the Sumatran tiger being the smallest and darkest, while the Siberian tiger is the largest and palest **subspecies** (6). However, markings and coat colour can overlap between **subspecies**, and individuals from different **subspecies** can not always be differentiated on the basis of their appearance alone (7).

Extreme colour varieties are occasionally seen in the wild, such as whitish-grey tigers with chocolate stripes (2). However, while this colour variation is popular with zoos, it is not of conservation significance (2).

Like the other big cats, the tiger is a formidable predator. It is exceptionally well adapted for hunting large prey, with short, heavily-muscled forelimbs and long, sharp, retractable claws (2). It also has a long, slender body, a short, thick neck and broad, powerful shoulders to capture and subdue its large prey (5). The skull is foreshortened, increasing the force that can be exerted by the powerful jaws and enabling the tiger to deliver crushing bites to its prey (2) (5).

## RANGE

The range of the tiger once extended throughout central and southern Asia, from eastern Russia as far west as eastern Turkey (1) (4). However, in the past 100 years, the tiger has lost more than 93 percent of its historic range and it has now disappeared from southwest and central Asia, from the Indonesian islands of Java and Bali, and from large areas of southeast and eastern Asia (1).

Today, the tiger survives in scattered and fragmented populations in 13 countries, from India to Southeast Asia, and in Sumatra, China and the Russian Far East (1) (4).

## HABITAT

The tiger occurs in a wide range of habitats, from tropical forests to tall grass jungles, encompassing coniferous woodlands, mangrove swamps and dry thorn forests (4). In general, however, the tiger requires dense cover, access to water and sufficient large prey (2) (4).

This species occurs over a range of altitudes, and has been found up to elevations of 4,500 metres in Bhutan (1).

## BIOLOGY

The tiger is a predominantly solitary creature (2), spending the majority of the year living and hunting alone (5). Generally, the tiger will occupy and defend a **territory** against intruders of the same sex. The male tiger has a larger **territory** that overlaps the **territories** of several females, with whom the male tiger will then mate (2). Individual tigers mark the boundaries of their **territory** with urine and scrapes, and scent is sprayed onto trees, bushes and rock faces. Faeces and scrapes are also left along trails and in conspicuous places throughout the **territory** to advertise to other tigers that the area is occupied (2).

Scent marking allows the tiger to communicate with other individuals within its range, and provides information on its identity, sex and reproductive condition (5). During **oestrus**, the female advertises to the male that they ready to breed by vocalising more frequently and increasing the rate at which they scent mark (2) (5).

Mating occurs throughout the year and the female gives birth to a litter of around two or three cubs after a four month **gestation** period (4). The cubs are born in a den, which may be a rock crevice, cave, thicket of vegetation or a shallow depression in dense grass (5). At birth, the cubs are small, blind, helpless and entirely dependent on the female's milk, although they grow quickly, increasing almost four times in size within the first month (2) (5). The cubs learn to hunt and kill from around six months of age but remain dependent on the female for at least 15 months, after which time they will disperse to find their own **territory**. The tiger reaches sexual maturity at three to five years old, but it may take longer to establish a **territory** and begin breeding (2).

The tiger is a 'stalk and ambush' predator, with its stripy coat providing effective camouflage in tall grass and forest (2). Hunting mainly occurs at night and its principal prey consists of deer and wild pigs, although the tiger preys on a variety of other animals and will also eat **carrion** (4). The tiger is capable of taking prey much larger than itself, including water buffalo, small elephants and rhinos (1). Unlike other species of cats, the tiger is a competent swimmer; it will readily enter the water, and can frequently be found lying half-submerged in streams and lakes in the midday heat (4).

## THREATS

Human activities are the principal cause of declining tiger numbers. Hunting was a major cause of mortality in the past, both for trophies and as part of organised pest control measures (4). Poaching and illegal killing, for example by livestock owners, remains one of today's major threats to the survival of this species, particularly with the growing demand for tiger bones in Oriental 'medicine' (8).

The demand for remedies made from tiger parts has grown due to increasing affluence in Asia, and laws preventing international trade in tiger parts are largely ignored. Hong Kong is the main importer of tiger products, with tiger bone the most used part. The bones are crushed to be used in anti-inflammatory drugs for rheumatism and arthritis, among many other uses. The trade in tiger skins is also increasing (9).

Habitat loss has occurred throughout much of the tiger's range and is now severely threatening its survival; as land becomes rapidly developed to meet the increasing demands of the Asian population (4), tiger populations become isolated in remaining fragments of wilderness and ultimately die out (2). The

tiger's natural prey species have declined in numbers due to over-hunting, which has led tiger's in some areas to turn to domestic livestock as a source of food, inevitably causing conflict with local farmers (4).

## CONSERVATION

Of the six surviving **subspecies** of tiger, the futures of the South China tiger and the Siberian tiger seem particularly bleak. Recent extensive surveys resulted in no sightings (7). India has the greatest number of tigers, but even the Bengal tiger population is estimated at no more than 2,500 individuals (1) (4). The combined global figure for all remaining **subspecies** is currently (in 2011) estimated at between 3,200 and 4,000 tigers (1).

The tiger is included on Appendix I of the Convention for International Trade in Endangered Species (CITES), meaning that a quota system limits the legal exports of tiger parts and derivatives (1) (3). TRAFFIC (the trade monitoring arm of the WWF and IUCN) monitors the level of international trade of tiger products and brings it to the attention of the relevant authorities (10).

The Indian government established Project Tiger in 1973 (11), with the aim of conserving the country's tiger population. Within India there are currently 21 tiger reserves, although these are increasingly threatened by human pressures on the land (4). The key to the survival of the tiger is the maintenance of large tracts of adjacent habitat, but protection of this species is complicated by its man-eater reputation and by the threat it poses to livestock (2). The involvement and commitment of local people will be vital for the future sustainability of this most regal of cats.

During 2010, the tiger was the focus of substantial conservation effort and investment, culminating in an unprecedented pledge by the 13 tiger range countries to effectively double the number of wild tigers by 2022. To achieve this goal, each of the countries in which the tiger remains will carry out actions to effectively preserve, manage, enhance and protect tiger habitats, and to eradicate poaching, smuggling and illegal trade of tigers. They will also cooperate in transboundary landscape management and in combating illegal trade. The range countries also pledged to engage with indigenous and local communities to work towards the restoration of the tiger to its former range (1).

## FIND OUT MORE

More information on the tiger:

- IUCN Cat Specialist Group:  
[www.catsg.org](http://www.catsg.org)
- BBC Wildlife Finder - Tiger:  
<http://www.bbc.co.uk/nature/species/Tiger>

Find out more about tiger conservation projects:

- Mohamed bin Zayed Species Conservation Fund  
<http://www.speciesconservation.org/projects/Amur-Tiger/412>

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<http://www.catsg.org>

## GLOSSARY

- **Carnivore:** an organism that feeds on flesh. The term can also be used to refer to a mammal in the order Carnivora.
- **Carrion:** the flesh of a dead animal.
- **Gestation:** the state of being pregnant; the period from conception to birth.
- **Oestrus:** the time of ovulation (release of an egg from the ovary) in female mammals, when the female becomes receptive to males. Also known as 'heat'.
- **Subspecies:** a population usually restricted to a geographical area that differs from other populations of the same species, but not to the extent of being classified as a separate species.
- **Territory:** an area occupied and defended by an animal, a pair of animals or a group.

## REFERENCES

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