This presentation aims to teach you about big cats. While traditionally this definition only includes the four largest living wild cats, we have expanded on this list.

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What is a Big Cat?

There are five species in the Panthera genus, and the four largest ones are considered to be "big cats." The tiger is the largest, followed in order of size by the lion, jaguar, and leopard. These four are the only cats with the ability to roar. The snow leopard is the fifth member of the Panthera genus, but it cannot roar.

The ability to roar comes from having an elongated larynx and a floating hyoid bone in the neck. The longer the larynx, the stronger the roar. Among these four big cats, the lion has the longest larynx, so it has the loudest roar.

Other species are sometimes included on the list of big cats, although they cannot roar. These are the cheetah, puma, cougar, mountain lion, and lynx. Big cats of one species or another can be found in North America, South America, Africa, Europe, and Asia.

Like all cats (including the domestic cats that people keep as pets), big cats are carnivores. Big cats are apex predators in their ecosystems. The main threats to big cat populations are habit destruction, hunting, and the loss of their prey populations.



Tiger

Many people believe lions to be the largest of the big cats. However, tigers are the largest of the big cat. While lions can be taller and longer, tigers far surpass lions in weight and mass. The average weight of tigers in the 20th century was between 180 and 306 kg for males and 100 and 167 kg for females. However, large tigers were targeted and shot by hunters. Today, a male Siberian tiger typically weighs between 160 and 180 kg while the female Siberian tiger weighs between 110 and 140 kg.

A tiger's diet is an opportunistic one and can include birds, fish, rodents, insects, reptiles, and prey much larger than themselves, such as elephants and rhinos. Availability of sufficient prey is critical to the survival of the tiger, which needs to kill 50 to 60 large prey per year.

Native to Asia, tigers are responsible for more human deaths than any other cat. The Bengal tiger has proven to be particularly lethal to humans, mostly due to human encroachment on their habitat. Tigers have now disappeared from southwest and central Asia as well as two Indonesian islands. They currently inhabit less than six percent of their original range. The largest number of tigers today is in the United States, living in captivity. In addition to habitat loss, poaching for the illegal animal trade is one of the greatest threats to the tiger.



Lion

The lion's mane (the long hair around their heads) is one of the most distinctive features of the adult male lion. Such gender features are rare among mammals. The average adult male lion is 1.4 to 2 meters from nose to rump, with a tailing measuring 67 to 100 cm. It generally weighs 120-191 kg.

Native to Africa and parts of India, lions are very social animals. Their family or "pride" structure is similar to that of canines, which are pack animals, rather than felines, which tend to be solitary. The pride hunts together and share in the nurture and care of their cubs, even nursing each other's young. A pride can consist of as many as 30 related females, guarded by two or three males. Female lions do the "lion's share" of their pack's hunting because they are smaller and agiler than males. They can hunt solo but often hunt in groups, usually at night. Their preferred prey include zebras, rhinos, hippos, giraffes and buffalo, but they also eat smaller prey such as mice, birds and lizards. The lion population has been declining at an alarming rate. In two decades, Africa's lion population has decreased by 43 percent. An estimated 23,000 lions remain in the wild. Human activity including settlement, land development, and agriculture are the main threats to the lion.



Jaguar

The jaguar is often confused with the leopard; however, the jaguar is stockier with shorter legs and tail, a larger head, and much more powerful paws. Adult male jaguars can reach a length of 2 meters and can weigh from 68 to 90 kg. Jaguars can be found in rainforests, savannahs, and swamps, often in the vicinity of fresh water, as they are excellent swimmers. Jaguars will hunt almost any available prey. However, they favour wild pigs and rodents. They are also known to eat deer, crocodiles, snakes, monkeys, and turtles.

Jaguars once were found in the United States but were hunted to extinction in the 1940s. There are still jaguars in Latin America, but deforestation is a major threat to their survival. Farmers and ranchers often shoot jaguars on sight to prevent them from preying on cattle and other livestock.

The jaguar is fully protected at the national level across most of its range, with hunting prohibited in Argentina, Brazil, Colombia, Costa Rica, French Guiana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Suriname, United States, and Venezuela, and hunting restrictions are in place in Guatemala and Peru. Specific conservation plans for the species have been developed in Brazil, Honduras, Mexico and Panama.



Leopard

Although they are the smallest of the big cats, leopards are considered one of the strongest and most agile. They can carry heavy prey over long distances and easily climb trees to rest in the branches. They have even been known to carry prey up into a tree to protect their food from other predators. Leopards are also extremely fast. They can run up to 58 km per hour. Their powerful legs can propel them forward in leaps of up to 6 meters measured horizontally. Like jaguars, they are also excellent swimmers.

Leopards are solitary animals and are hard to track or find in the wild, primarily due to their ability to survive in a wide variety of habitats. The Himalayan snow leopard is probably the best example of the elusiveness of this big cat.

The ability to climb trees with ease is not the only thing leopards have in common with domesticated cats – they growl when angry and purr when content.



Cheetah

The cheetah's name comes from the Hindi word "chita," which means "spotted one." Cheetahs have between 2,000 to 3,000 spots that serve as camouflage.

With long, slender legs and a long tail, cheetahs are the fastest land animal in the world, reaching speeds of up to 113km/hour. They can go from 0 to 100km/hour in only 3 seconds. However, they can maintain top speed for only about 400 meters. A cheetah's respiratory rate and body temperature rise sharply when running fast and can cause the animal to collapse if they get too high. The cheetah is a pursuit hunter, and approximately half of a cheetah's prey manage to get away when their pursuer overheats.

The cheetah's habitats include open grasslands, savannahs, dense vegetation and, sometimes mountainous terrain. Namibia is home to the largest cheetah population. Because of land development, 95 percent of the cheetahs in Namibia live on cultivated land, which exposes them to the risk of being shot by farmers or ranchers. The cheetah is a solitary animal that marks its territory by urinating, primarily to warn off other cheetahs. Cheetahs communicate through a variety of vocalisations including purrs, barks, growls, hisses and a high pitched chirping sound.



Puma, Cougar and Mountain Lion

Cougars, also known as mountain lions and pumas, are the largest cat in the genus "felis." The cougar is native to the United States and found in Washington, in the Pacific Northwest. The cougar's geographic range stretches from northwestern Canada to Patagonia and South America. An estimated 2,500 cougars live in this area, and their numbers are growing.

The adult male mountain lion can weigh up to 90 kg and adult females up to 60 kg. They have a long body with a small head, short face, and very long neck and tail. Their ears are round and short. Their colour is typically evenly grey or reddish tan and white muzzle and chest.

Cougars are predatory carnivores. They are extremely good at hiding and are very rarely seen in the wild. They hunt day and night, and their primary prey is deer.

Cougars cannot roar, but they can jump as far as 5.4 meters from a sitting position.



Lynx

The four species belonging to the lynx genus are the: Spanish, Canadian, Eurasian, and bobcat. Despite their common names, the desert or African lynx (or caracal) and the swamp lynx (also called jungle cat) are not members of the lynx genus.

Lynx can be found in Asia, Europe, and North America; however, the population is threatened in some areas due to poaching.

Lynx are beautiful animals, with thick fur and a variation of colours depending on the season. They can range from light brown in summer to grey in the winter.

Lynx have extremely sharp vision and can detect a mouse as far away as 60 meters. They are carnivores and primarily hunt snowshoe hare, mice, squirrels, and birds. Larger species of lynx sometimes hunt bigger prey, such as deer.

Lynx are solitary and elusive animals, only gathering together during the mating season. They can survive up to 14 years in the wild.



Big Cat Facts

- The number of tigers in captivity in China now far outweighs the number in the wild because they are being bred to make Tiger Bone wine;
- Male lions lose their mane when neutered;
- Like domesticated cats, big cats are attracted to catnip;
- The Siberian tiger is considered the most patient predator and also the most brutal;
- In 2005, an Ethiopian girl who had been kidnapped and beaten by seven men was rescued by a pride of lions that chased the men off and stayed to protect her until help arrived;
- In the Sundarban Tiger Reserve of Bengal, people wear masks on the back of their heads because tigers only attack from behind;
- In 18th-century England, if you wanted to visit a zoo, the price of admission was a dog or a cat, which would be fed to the lions;
- Cheetahs only need to drink water every three or four days;
- Jaguars can bite down with approximately 907 kg of force. Among mammals, only the hyena has a stronger bite;



Australian Curriculum Mapping

GRADE 5 SCIENCE (ACSSU043): Living things have structural features and adaptations that help them to survive in their environment.

GRADE 6 SCIENCE (ACSSU094): The growth and survival of living things are affected by the physical conditions of their environment.

YEAR 7 SCIENCE (ACSSU112): Interactions between organisms, including the effects of human activities can be represented by food chains and food webs.

YEAR 9 SCIENCE (ACSSU176): Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems.

YEAR 10: SCIENCE (ACHGK070): Human-induced environmental changes that challenge sustainability.

SUSTAINABILITY (01.9): Sustainable futures result from actions designed to preserve and/or restore the quality and uniqueness of environments.



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