The cheetah, *Acinonyx jubatus*, is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era. The cheetah is also the world’s fastest land mammal, a feline icon of nature. It is an animal built for speed, with all parts of its body having evolved for precision and agility. From their small, aerodynamic head, lean body and long legs, to a flexible backbone and tail that works like a boat’s rudder, and semi-retractable claws like cleats on a running shoe, the cheetah can reach speeds of up to 70 mph and change direction in a split second. The cheetah also has the ability to accelerate from zero to 60 mph in just three seconds.

**CHEETAHS: BIG CATS BUILT FOR SPEED**

**PHYSICAL TRAITS**

Cheetahs have a thin frame with a narrow waist and deep chest. They have extra-large nostrils that allow for increased oxygen intake, with larger than normal heart and lungs and strong arteries and adrenals that work in tandem to circulate oxygen more efficiently. Their weight averages between 75 and 125 pounds and they can be anywhere from 40 to 60 inches in length, measured from the head to the hind quarters. The tail can add another 24 to 32 inches. Most cheetahs stand 28 to 36 inches tall at the shoulder. Males are slightly bigger with larger heads, but there is not much physical difference between the sexes. It is difficult to identify the cheetah’s sex by appearance alone.

The cheetah’s undercoat ranges in color from light tan to a deep gold and is marked by solid black spots. These spots are not open like the rosettes found on a leopard or jaguar’s coat, which is one way to quickly identify the cheetah. Cheetahs are also recognized by their distinctive black “tear marks” that extend from the corners of both eyes along the sides of their noses to their mouths. The biological purpose for these markings is to keep the glare of the sun down so cheetahs can see more clearly across long distances. Their tail ends with a bushy tuft encircled by five or six dark rings. These markings provide them with excellent camouflage while hunting and make them more difficult for other predators to detect.

Unlike other big cats often grouped with the cheetah (i.e. - tiger, lion, leopard and jaguar), cheetahs do not roar. They growl when facing danger, and they vocalize with sounds more equivalent to a high-pitched chirp or bubble and bark when communicating with each other.

The cheetah can also purr while both inhaling and exhaling, which other big cats cannot.

**THE CHEETAH’S LIFE**

There are three stages in the lifecycle of the cheetah: a cub’s life, adolescence and adult life. The gestation period for the cheetah is 93 days, and litters range in size from one or two up to six cubs (the occasional litter of eight cubs has been recorded, but it is rare). At birth, the cubs weigh 8.5 to 15 ounces and are blind and helpless. Their mother will groom them patiently, purring quietly and providing them warmth and security. After a day or so, the mother will leave the cubs to hunt for herself, so she can continue to care for the cubs. This is the most vulnerable time for the cubs, as they are left unprotected. They will live in a secluded nest for the next six to eight weeks, being regularly moved by their mother from nest to nest to avoid detection by predators. The mother will care for her cubs on her own for the next year and a half.

At about six weeks of age, the cubs begin following their mother on her daily travels as she is looking for prey. During these first few months she cannot move far or fast and cub mortality is highest. Less than one in 10 will survive during this time, as they perish from predation by other large predators such as lions and hyenas, or from injuries. This is the time when life skills are taught. Their long mantle of hair on their backs serves the dual purpose of keeping them warm and helping hide them from predators who mistake them for the aggressive honey badger.

Between four to six months of age, cheetah cubs are very active and playful. Trees provide good observation points and allow for development of
skills in balancing. The cubs' semi non-retractable claws are sharper at this age and help them grip the tall 'playtrees' they climb with their siblings.

Learning to hunt is the most critical survival skill that the cubs will develop. At one year of age, cheetah cubs participate in hunts with their mother. The hunt has several components. It includes prey detection, stalking, the chase, tripping (or prey capture), and killing by means of a suffocation bite. At about 18 months of age, the mother and cubs will finally separate. Although not fully adept at hunting on their own, independent male and female cubs will stick together for a few more months to master their hunting skills. When the adolescent females begin cycling, dominant males will court them and drive their brothers away.

MALE COALITIONS
Male cheetahs from the same litter remain together for the rest of their lives, forming a cheetah coalition. Coalitions increase hunting success and defense against predators. They become dispersal males, on the move for a few years after leaving their mother and sisters, until they can defend a territory. They will travel hundreds of miles, being moved out of one area to another, pushed by more dominant males. Eventually, they will find a place where they can settle. Cheetahs require huge home range territory, covering an average of 750 to 900 square miles.

Adult life for a cheetah is difficult. Cheetahs live fast and die young. There is competition between territorial males, which often results in death. The lifespan of an adult male is 8 years. Adult mortality is one of the most significant limiting factors for cheetah population growth and survival.

CHEETAH SURVIVAL
 Relatives of the modern cheetah had worldwide distribution until about 20,000 years ago, when the world's environment underwent drastic changes in the Great Ice Age. Throughout North America, Europe, and Asia, about 75 percent of the mammal species vanished. Only a handful of the modern cheetah remained, having gone through a “genetic bottleneck” that resulted in inbreeding, which detrimentally impacts species survival.

Once found throughout Asia and Africa, today there are fewer than 7,100 adult and adolescent cheetahs in the wild. This number has dropped from 100,000 a century ago, indicating a rapid decline. Cheetahs are listed as Vulnerable on the IUCN Red List. In Namibia, they are a protected species. Under the Endangered Species Act in the United States, they are considered Endangered. The Convention on International Trade in Endangered Species (CITES) lists them as an Appendix I species.

Most wild cheetahs exist in fragmented populations in pockets of Africa, occupying a mere 9 percent of their historic range. In Iran, less than 50 Asiatic cheetahs (a sub-species) remain. The largest single population of cheetahs occupies a six-country polygon that spans Namibia, Botswana, South Africa, Angola, Mozambique and Zambia. Namibia has the largest number of individuals of any country, earning it the nickname, “The Cheetah Capital of the World.”

More than 75 percent of remaining wild cheetahs live on rural farmlands alongside human communities. The small populations that live in national parks and wildlife reserves must compete with larger, more aggressive predators, which can kill cheetah cubs and often steal their prey.

Their main threats to survival include human-carnivore conflict, loss of habitat and loss of prey, poaching and illegal wildlife trafficking, with cubs being taken from the Horn of Africa and smuggled into the exotic pet trade, primarily in the Gulf States.