

Fact Sheet: African lion

Panthera leo

Description:

- Size:
 - Male: 5-5.8 ft (1.5-2.5 m)
 - Female: 4-5.6 ft (1.4-2 m)
- Weight:
 - Male: 330-550 lb (150-250 kg)
 - Female: 264-400 lb (120-181 kg)
- Sexual dimorphisms: Males tend to be larger than females
 - Male lions are the only cats with manes
- Physical description: Large cats with short coats, long tails with a tuft at the end, and short snouts.
 - The only cats with tufted tails
 - Second only to Siberian tigers in size
- Coloration: Tawny coats with white underparts. Tuft at the end of the tail is black, and manes may range from golden yellow to dark brown.
 - Cubs have brown spots on a grayish coat until three months old; spots may remain on stomach

In The Wild

Habitat and Range:

- Geographic range: Historically, lions ranged over a large area from Africa to Greece and the Mediterranean
 - Present day, they are found in sub-Saharan Africa. A small population remains in Northwest India, though this population is recognized as a separate subspecies.
- Preferred habitat: Have a broad habitat tolerance that can range from savannah woodlands to desert fringes to mountains.
 - Tend to prefer thick bush, scrub, and grass, which provide cover for hunting and defense

Diet:

- Carnivorous
 - Eat meat
 - Prey consists of medium to large ungulates: hoofed animals such as gazelles, zebras, antelopes, and wild hogs
 - Will eat the young of larger animals, such as elephants and rhinos

Adaptations:

- Lions are the top predators in their range. Cooperative group hunting helps to maximize success (groups have a better chance of making a kill and can take down larger prey)
- Typically sight hunters with brief bursts of speed – binocular vision allows for depth perception
- Specialized for hunting and eating meat. Good eyesight, specialized teeth, flexible spine, powerful leg and jaw muscles, forelimbs with retractable claws
- Camouflage coloration – rely on concealment and stalking during the hunt

- Like all cats, lions have very good acceleration but little stamina. When hunting it is important to get as close to their prey as possible before charging
- The tongue is covered with tiny, sharp, backward-facing hooks, allowing it to function as a comb for grooming and as a rasp for scraping meat from bones
- The mane is thought to signal to other lions the sex of a male from a distance and to indicate individual fitness. The rate of mane development is mostly controlled by testosterone.
- Roaring serves to demarcate territories, communicate with other pride members, and demonstrate aggression toward enemy lions. Lions also roar in chorus; this may be a form of social bonding.
- Lions, like most large predators, spend most of the day sleeping to conserve energy for the hunt
- Are the most social of all big cats

Lifespan:

- In the wild: about 15 or 16 years
- In captivity: up to 30 years

Ecosystem relationships:

- Predators: Cubs may be vulnerable to other large predators, such as leopards.
 - Adult lions have no predators besides humans
- Interspecies competitors: Compete for food with leopards, cheetahs, wild dogs, and hyenas
 - Lions will kill other predators
 - Hyenas are known to kill young or sick/weak adult lions
 - Lions may drive other predators or scavengers
- Role/niche: As a top predator, lions control the populations of animals below them in the food chain.

Reproduction:

- Breeding season: typically peaks during the rainy season, but females can come into estrus year round
- Behavior: Males that take over a pride will kill the existing cubs (a process called *infanticide*), which brings the females into estrous so that they can reproduce new cubs
 - The first male that reaches a female in heat gains priority for breeding rights. Males rarely fight over females.
- Gestation: Typically 3 and a half months
- Litter size: Range between 1 and 6 cubs, typically 2 to 4
- Maturation: Cubs are highly *altricial* (dependent on adult care)
 - Eyes are closed, open at about 11 days
 - Stay in hiding until about 8 weeks old
 - Wean between 7-10 months
 - Dependent on adults in the pride until about 16 months

Activity:

- Nocturnal

- Majority of a lion's hunting is done at night
- Social behavior: While most other big cats are solitary, lions live in social groups (called prides) consisting of 2-20 individuals
 - Female cubs stay with pride; males leave at 2-4 years
 - Prides are usually comprised of related females, males that are related to each other, but not to the females, and offspring
 - Males typically forcefully gain control of the pride from the previous male members
 - Males form coalitions, usually consisting of brothers and perform cooperative hunting
 - Because lions live at higher population densities than other large cats, there is a great need for pride members to collectively defend their territory against takeovers by other lions
 - Females do not display dominance behavior, but hunt and raise young cooperatively
 - Males tend to be more aggressive with other members of the pride, especially when feeding

Other "fun facts":

- Lions are one of the few carnivores that can effectively hunt prey weighing over 550 lbs.
- A male's mane can vary between a platinum blond to black, much the way human's hair can vary
- Males will lose their manes if castrated or severely injured

Conservation Status and Threats:

- Listed on the IUCN Red List as Vulnerable
- In the wild, only a century ago, there were as many as 200,000 lions in Africa. Today there are fewer than 30,000. Lions have vanished from 80% of their historical range in Africa.
 - Extinct in 26 countries
- In West and Central Africa the lion is now "Endangered"
- Major threat: human-lion conflict
 - Lions are killed as problem animals in areas where they raid livestock
 - Because they also scavenge, they are particularly vulnerable to poisoned carcasses set out to eliminate predators
- Other threats
 - Habitat loss and fragmentation leads to populations becoming small and isolated
 - Loss of prey species (due to poaching, habitat loss, etc) is another major threat
- Trophy hunting can be a threat when carried out at unsustainable levels, but has the potential to be beneficial when properly managed because it provides economic value and financial resources for lion conservation initiatives

At the Zoo

- Hassan: male, born July 2007
 - From Cheyenne Mountain Zoo
 - Eats around 56lbs of meat a week

- Luke: male, born October 2013 at MZIB to father Hassan
 - In 2015, weighs 325 lbs
- Zuri: female, born September 2013 at Zoo Miami
 - In 2015, weighs 227 lbs
- The young lions eat around 25-30 lbs of meat a week

What We Can Do

- Make environmentally responsible lifestyle decisions to help conserve habitat - conserve energy and resources, reduce litter and pollution
- Support the conservation efforts of local organizations like The Maryland Zoo as well as organizations working in the field to protect wildlife and conserve habitat
- The Serengeti Lion Project is the longest running lion research project in Africa
- Panthera – Project Leonardo seeks to ensure the long-term survival of lions across Africa by targeting the areas where lions are most imperiled.
 - Empowering local communities to mitigate human-lion conflicts by improving their livestock management practices, reducing illegal hunting of lions and encouraging villagers to tap into conservation’s financial and social benefits.
 - Creating a Pan-African Lion Corridor that protects key lion habitat and connect core lion populations in order to preserve the species genetic diversity.
 - Developed Lion Guardians Program to address retaliatory and traditional spearing of lions by Maasai warriors.
- Wildlife Conservation Society
- Big Cat Initiative
- Lion SSP, with support of Houston Zoo and Denver Zoo, partnered to launch a lion conservation campaign.
 - Goal is to help raise awareness among the zoo community about the threats lions face in the wild and offer a simple but impactful way to help.
 - The campaign endorsed six projects in Kenya, Tanzania and Mozambique that focus on habitat protections and mitigating human conflict.
 - PRIDE
 - Niassa lion project
 - Ruaha carnivore project
 - Ewaso lions project
 - Lion guardians

References and additional resources:

- <http://www.iucnredlist.org/details/full/15951/0>
- <http://www.arkive.org/lion/panthera-leo/factsheet>
- http://animaldiversity.ummz.umich.edu/accounts/Panthera_leo/
- Macdonald, David W. "Lion." *The Princeton Encyclopedia of Mammals*. Princeton, NJ: Princeton UP, 2009. 628-35. Print.