



Puma (*Puma concolor*)



Also known as: cougar, mountain lion, panther

Synonyms: *Felis concolor*

Spanish: León Americano, León Bayo, León Colorado, León De Montaña, Mitzli, Onza Bermeja

Kingdom Animalia

Phylum Chordata

Class Mammalia

Order Carnivora

Family Felidae

Genus *Puma* (1)

Size Head-body length: 105 – 196 cm (2)
Tail length: 67 – 78 cm (2)
Average male weight: 53 - 72 kg (3)
Average female weight: 34 - 48 kg (3)

Top facts

- While the coat of the adult puma is a uniform colour, kittens have a spotted coat and blue eyes.
- Pumas produce a variety of vocalisations, but cannot roar.
- The puma holds the record for the mammal with the most common names, with over 40 known names in English alone.
- A widespread species, the puma can be found in many diverse habitats, including deserts, rainforests and mountains.
- Pumas lead solitary lives, only coming together to mate, although the young remain with the female until they are around 2 years old.

STATUS

The puma is classified as Least Concern (LC) on the IUCN Red List (1), and listed on Appendix II of CITES (3). **Subspecies:** *Puma concolor coryi* (Florida puma), *P. c. cougar* (Eastern puma) and *P. c. costaricensis* are listed on Appendix I of CITES (4). A number of other **subspecies** exist, but are not classified separately on the IUCN Red List.

DESCRIPTION

Other than man, the large, slender puma (*Puma concolor*) has the greatest natural distribution of any terrestrial mammal in the Western Hemisphere (5). The puma, also known as the cougar, mountain lion and panther, is powerfully built and extremely agile. These cats are characterised by a long body with unusually long hindlimbs, thought to be an adaptation to bursts of high-speed running and jumping, used to chase and ambush prey (5) (6). The cat has a long neck, a small, broad head, short, rounded ears that are black on the back, and a long, cylindrical tail with a black tip (5) (6). The coat is of uniform colour, hence the Latin name, *concolor*, varying from silvery-grey through tawny-yellow to light reddish

brown (3) (7). The throat, chest and belly are a pale buff to whitish colour (8) and the sides of the muzzle are framed in black (5). Faint horizontal stripes may occasionally be seen on the upper forelegs, and **melanism** has been widely reported though not confirmed (3) (5). Young kittens are spotted, with blue eyes (3). Males rarely weigh more than 100 kilograms, and depending on sex and age, tend to be larger in the north of their range (3), and the coat is generally longer to insulate against extreme temperatures (7).

RANGE

Widespread, ranging from areas in Canada, down through the United States, south to Central and South America. However, the pumas' range has greatly retracted, having been eliminated from the almost the entire eastern half of Northern America following European colonisation (1).

HABITAT

The puma is highly adaptable, found in a diverse range of habitats, from arid desert to tropical rainforest to cold coniferous forest, from sea level up to 5,800 metres in the Andes (3) (5). Studies have shown that habitat with dense understorey vegetation is preferred, but these cats can also live in open areas with sparse vegetative cover (3). Although terrestrial, pumas can swim and climb trees when they need to (5).

BIOLOGY

Pumas are solitary cats, with the exception of one to six day associations during mating periods and contact between females and their young (8). Males occupy large territories that overlap those of several females; the boundaries of the territory are marked by scrapes left in prominent positions (3). Females advertise their receptivity to mating with loud scream-like calls (5). Mating occurs year-round, but is concentrated from December to March in northern latitudes (8). The female gives birth to her litter of between one and six kittens within a den; the kittens are initially blind and helpless, remaining in the den whilst their mother forages for food (3) (8). At around two months of age they are able to accompany their mother on hunting forays and remain with her until around 1.5 to 2 years old (9).

Pumas are primarily **nocturnal** and **crepuscular**, being most active at dawn and dusk, and rarely emerging in the day (3). These agile yet powerful cats hunt by stalking and ambushing their prey (6). Pumas predominantly feed on **ungulates**, but are known to occasionally take smaller prey (10). In the northern areas of their range, they feed primarily on large **ungulates**, including elk and occasionally domestic cattle, whereas in tropical areas their diet seems to consist of more medium-sized prey (10).

THREATS

Across their range, pumas have been considered a threat to livestock and persecuted because of this (1). Indeed, the U.S. Fish and Wildlife Service estimate that a minimum of 66,665 pumas were killed between 1907 and 1978. Additionally, pumas are one of the few large predators in Northern America that it is legal to hunt for sport and chase with dogs (5). This species is particularly vulnerable because it takes to trees when hunted, effectively becoming trapped (3). Pumas are also considered a potential danger to humans, especially children (8), although pumas almost never attack people (5). With people settling in more remote areas and with legal protection of the cat, the potential for conflict between humans and pumas arises, and there is a concern that pumas will lose their fear of being close to humans. In California and Florida, many animals are killed by vehicles as heavily travelled roads divide populations and even the home ranges of individual pumas. Loss and fragmentation of habitat also poses significant threats to the puma's future survival, resulting in the serious problem of reduced genetic diversity associated with **inbreeding**, which in turn reduces resistance to disease or environmental change, and adversely affects fertility (7).

CONSERVATION

The puma is protected over much of its range. Hunting is prohibited in Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, French Guiana, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Suriname, Venezuela and Uruguay, and hunting regulations exist in Canada, Mexico, Peru and the United States (1). However, there still remains no legal protection in Ecuador, El Salvador, and Guyana. Recently, the Florida puma has been declared extinct in the wild (9). Remaining viable tracts of habitat are being conserved and connected by corridors, and the impact of a major highway has been lessened by the construction of underpasses for the safe travel of pumas in the area (9). In 1995, wildlife managers controversially introduced several female pumas from Texas into Florida in an effort to increase genetic diversity. This is thought by many to have alleviated a number of problems associated with **inbreeding** amongst Florida pumas (6). The levels of prey species are being monitored, wild pumas have been vaccinated against diseases and a captive breeding programme has been established (1). Fortunately, despite conflict with ranchers and concern over the dangers pumas may pose to humans, there appears to be strong overall public support for the cat in North America. The fact that there is a genuine desire by many people to find ways to coexist with the puma is an encouraging step towards promoting positive conservation actions and protecting this beautiful cat (3).

FIND OUT MORE

For more information on the puma:

- IUCN/SSC Cat Specialist Group:
<http://www.catsg.org>
- Big Cats Online:
www.agarman.dial.pipex.com/puma.htm
- BBC Wildlife Finder:
<http://www.bbc.co.uk/nature/species/Cougar>
- Sunquist, M. and Sunquist, F. (2002) *Wild Cats of the World*. University of Chicago Press, Chicago.

AUTHENTICATION

Authenticated (14/02/2008) by Dr. John Laundre, Senior Researcher, Instituto de Ecología, A.C., Durango Regional Center. Mexico.

GLOSSARY

- **Crepuscular:** active at dawn and dusk.
- **Inbreeding:** the breeding of closely related individuals. An inbred population usually has less genetic variability and this is generally disadvantageous for its long-term survival and success.
- **Melanism:** the expression of dark or black colouration in an animal that is not normally so. These animals are usually not pure black, as any markings can still be seen.
- **Nocturnal:** active at night.
- **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.
- **Ungulates:** hoofed, grazing mammals.

REFERENCES

1. IUCN Red List (May, 2011)
<http://www.iucnredlist.org>
2. Macdonald, D. (2001) *The New Encyclopedia of Mammals*. Oxford University Press, Oxford.
3. IUCN/SSC Cat Specialist Group (March, 2006)
<http://www.catsg.org>
4. CITES (March, 2006)
<http://www.cites.org>
5. Sunquist, M. and Sunquist, F. (2002) *Wild Cats of the World*. University of Chicago Press, Chicago.
6. Big Cat Rescue (March, 2006)
http://www.bigcatrescue.org/cats/wild/florida_panther.htm
7. Big Cats Online (March, 2006)
<http://www.agarman.dial.pipex.com/puma.htm>
8. Animal Diversity Web (March, 2006)
<http://animaldiversity.ummz.umich.edu/site/index.html>
9. Fish and Wildlife Service (May, 2011)
<http://www.fws.gov/endangered/i/A05.html>
10. Laundre, J. (2008) *Pers. comm.*