

Geoffroy's Cat: Biodiversity Research Project

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Geoffroy's Cat

Geoffroy's Cat (*Leopardus geoffroyi*) are small, little known spotted wild cat found native to the central and southern regions of South America. Étienne Geoffroy Saint-Hilaire (1772-1844), a 19th century French zoologist whom Geoffroy's Cat is named after, studied the animal while a professor of zoology in Paris. During his study, he had identified five subspecies based on their geographic dispersment:

- *Leopardus geoffroyi geoffroyi* – Central Argentina
- *Leopardus geoffroyi euxantha* – Northern Argentina, Western Brazil
- *Leopardus geoffroyi leucobapta* – Patagonia
- *Leopardus geoffroyi paraguayae* – Paraguay, Southeast Brazil, Uruguay
- *Leopardus geoffroyi salinarum* – Northwest and Central Argentina

Geoffroy's cat have small black spots that uniformly cover their fur coat with little variation in size and spacing. Their fur coat varies from an orange brown color in the northern ranges to a grey color in more southern areas with numerous shades in-



Geoffroy's Cat with black fur coat

between but it is found that full black coats are found to be common. Like most wild cats, the fur on its underbelly is a pale color which ranges from a cream color to a white. Their tails and limbs are covered in dark, near equally spaced rings. Geoffroy's cat is

about the size of an average domestic cat, averaging around 60 centimeters (24 inches) from head to the base of the tail and its tail averaging around 30 centimeters (12 inches). Males on average weigh 4.5kg (10lbs.) while females average about 3.6 kg, (8 lbs.) though individuals have been reported to weigh up to 7.7kg (17 lbs.). (Lucherini, Mauro. et al.) When samples were compared between regions, only the male cat's mass varied with geographic location. Those found in the southern part of their range are typically larger than those in the north although no correlation was found between body mass and latitude. (Lucherini, Mauro. et al.) Unusual among wild cats and cats in general, Geoffroy's cats have been observed to stand up on their hind legs to scan the surrounding area. Some individuals of Geoffroy's cats are known to live for longer than 20 years in captivity but on average, wild cats will usually live up to 14 years old.

Geoffroy's cats are nocturnal with their activities peaking around the middle of the night. Geoffroy's cats typically spend most of their time on the ground, but are able to climb trees and are able to swim very well, as locals call them 'fishing cats'



Geoffroy's Cat on a branch

due to their ability to readily enter water. As solitary hunters, Geoffroy's Cat will only come in contact with each other during the mating season. Geoffroy's cat has been described as opportunistic predators (Bisceglia, Silvina B.C., et al.) meaning that they

will feed on whatever is the most abundant in their area or easiest to prey on. Small mammals are their most frequent prey, representing at least 63.3% of its primary diet in each season whereas birds and reptiles were most commonly hunted during the warmer seasons. (Bisceglia, Silvina B.C., et al.) Geoffroy's Cats tend to use grasslands and marshes for the purpose of hunting and resting and will use forest sights for scent-marking. Seasonal differences in their diet were noticeably higher between the warmer and colder seasons, suggesting that the diet was constrained by seasonal fluctuation and availability of prey. (Bisceglia, Silvina B.C., et al.)

Geoffroy's cats inhabit the Andes Pampas grasslands, Monte deserts and semi deserts, dry forests and savannas of the Gran Chaco landscape, ranging from southern Bolivia to the Straits of Magellan at elevations of up to 3,300 meters above sea level. (Manfredi, Claudia, et al.) The total home range size of these cats average about 8.83 km² while the main habitat these cats visit frequently only spanned 1.46 km². (Manfredi, Claudia, et al.) When observed in the wild, Geoffroy's cats that lived in habitats modified by ranches and cattle grazing, they were more active, had larger home ranges and travelled greater distances than those in protected areas.



Range map for Geoffroy's Cat
(*Leopardus geoffroyi*),
Photo by Udo Schröter (2009)

Currently, the Geoffroy's cat is near threatened and although they are not in any immediate danger. Geoffroy's cats suffer a very high hunting pressure outside of their

protected area which is currently one of their biggest conservation threats. (Pereira, J. A., et al.) However, there is the exploitation of its pelt for the illegal fur trading industry during the 1960s to the 1980s, claiming an estimated 350,000 pelts between 1976-1978 alone. (Pereira, J. A., et al.) Since the mid-1980s, hunting and trading of their fur have significantly decreased but it is still one of their largest threats. In a recent survey using camera traps, it is estimated that the population density for the Geoffroy's Cat is around 9-40 individuals per 100 km². (Cuellar, Erika, et al.) Although the population size is currently unknown, we believe that the population is decreasing and thinning. (Pereira, J. A., et al.) However, they are still occasionally killed when seen as pests or as livestock predators. These pelts may be seen in circulation within the local illegal trade.

In central Argentina, human caused mortality makes up for 62 percent of known Geoffroy's cat deaths, which includes poaching, being killed by domesticated dogs and vehicle collisions (Pereira, J. A., et al.). Another factor to its endangerment is the overwhelming demand for them from the exotic pet trade. (Pereira, J. A., et al.) These cats are captured illegally and are bred with domesticated cats which produce hybrid cats and reduce the overall population. Crucial forests and habitats are rapidly being lost due to human causes, such as deforestation, but unlike other species that rely heavily on their habitat, the Geoffroy's cat has learned to adapt and utilize the open areas as well. Currently, Geoffroy's cat is protected in Argentina but because of the lack of information available on their natural history, it is not possible to develop a proper and scientifically sound conservation strategy to protect this animal. (Pereira, J. A., et al.)

Literature Cited

- Bisceglia, Silvina B.C., et al. "Food habits of Geoffroy's cat (*Leopardus geoffroyi*) in the central Monte desert of Argentina" *Journal of Arid Environments*. Volume 72, Issue 6, June 2008, Pg.1120–1126. *Academic Search Complete*. Web. 19 Feb. 2014.
- Cuellar, Erika, et al. "Geoffroy's Cats At The Northern Limit Of Their Range: Activity Patterns and Density Estimates From Camera Trapping In Bolivian Dry Forests." *Studies On Neotropical Fauna & Environment* 41.3 (2006): Pg.169-177. *Academic Search Complete*. Web. 19 Feb. 2014.
- Lucherini, Mauro. et al. "Body mass variation in the Geoffroy's cat (*Oncifelis geoffroyi*)." *Revista Chilena de Historia Natural* 79 (2006): Pg. 169-174. *Academic Search Complete*. Web. 19 Feb. 2014.
- Manfredi, Claudia, et al. "Home Range Size And Habitat Selection Of Geoffroy's Cat (*Leopardus geoffroyi*, Felidae, Carnivora) In The Pampas Grassland." *Mammalia: International Journal Of The Systematics, Biology & Ecology Of Mammals* 76.1 (2012): Pg.105-108.*Academic Search Complete*. Web. 19 Feb. 2014.
- Pereira, J. A., et al. "Population Density Of Geoffroy's Cat In Scrublands Of Central Argentina." *Journal Of Zoology* 283.1 (2011): Pg.37-44. *Academic Search Complete*. Web. 19 Feb. 2014.

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