


Black-footed Cat

Black-footed Cat ^[1]	
	
Conservation status	
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">Extinct EX</div> <div style="text-align: center;">EW</div> <div style="text-align: center;">Threatened ┌───┬───┬───┐ CR EN VU</div> <div style="text-align: center;">NT</div> <div style="text-align: center;">Least Concern LC</div> </div> <p style="text-align: center;">Vulnerable (IUCN 3.1)^[2]</p>	
Scientific classification	
Kingdom:	Animalia
Phylum:	Chordata
Class:	Mammalia
Order:	Carnivora
Family:	Felidae
Genus:	<i>Felis</i>
Species:	<i>F. nigripes</i>
Binomial name	
<p><i>Felis nigripes</i> Burchell, 1824</p>	
subspecies	
<ul style="list-style-type: none"> • <i>Felis nigripes nigripes</i> (Burchell, 1824) • <i>Felis nigripes thomasi</i> (Shortridge, 1931) 	



The **black-footed cat** (*Felis nigripes*) is the smallest African cat, and is endemic in the south west arid zone of the southern African subregion. It is one of the lesser studied African carnivores, and has been listed as Vulnerable by IUCN since 2002.^{[2] [3]}

Characteristics



The black-footed cat is one of the smallest cat species. Adult resident males weigh on average 1.9 kg (4.2 lb) and a maximum of 2.45 kg (5.4 lb). Adult resident females weigh on average 1.3 kilograms (2.9 lb) and a maximum of 1.65 kg (3.6 lb).^[3] Males reach a head-to-body length of 36.7 to 43.3 cm (14.4 to 17.0 in) with a 16.4 to 19.8 cm (6.5 to 7.8 in) long tail. Females are smaller with a maximum head-to-body-length of 36.9 cm (14.5 in) and a 12.6 to 17.0 cm (5.0 to 6.7 in) long tail.^[4] The shoulder height is about 25 centimetres (9.8 in).^[5]

Only the pads and underparts of its feet are black. It is this characteristic that gives the Black-footed Cat its name.^[6] The fur varies in color from cinnamon-buff to tawny, and is patterned with black or brown spots that merge to form rings on the legs, neck, and tail. The skin, however, is unpigmented pink, unlike that of other spotted cats. The backs of the rounded ears are the same color as the background coat color. The eyes are very large.^[7]

Distribution and habitat

The black-footed cat is endemic to southern Africa. distributed over South Africa, Namibia, Botswana, and marginally into Zimbabwe and in extreme southern Angola. It lives in dry, open savanna, grassland and Karoo semi-desert with shrub and tree cover at altitudes of up to 2000 m (6600 ft), but not in the driest and sandiest parts of the Namib and Kalahari Deserts.^[2]

Distribution of subspecies

Two subspecies are recognized:^[1]

- *Felis nigripes nigripes* — lives in Botswana, Namibia, and in the northern parts of South Africa;
- *Felis nigripes thomasi* — lives in southeastern South Africa

According to Shortridge's description *F.n. nigripes* is smaller and paler than *F.n. thomasi*. But since specimens with characteristics of both assumed subspecies are found close to Kimberley in central South Africa, the existence of subspecies is questioned as there are no geographical or ecological barriers to their ranges.^[8]

Ecology and behavior

Black-footed cats are solitary and strictly nocturnal, and thus rarely seen. They spend the day resting in dense cover, in unoccupied burrows of springhares, porcupines and aardvarks, or in hollow termite mounds. They emerge to hunt after sunset.^[8]

They are typically found in dry open habitat with some degree of vegetation cover. Apparently, they get all the moisture they need from their prey, but will drink water when available.^[4]

Unlike most other cats, black-footed cats are poor climbers, and will generally ignore tree branches. Their stocky body and short tail are not conducive to tree-climbing.^[9] They dig vigorously in the sand to extend or modify burrows for shelter.^[7]

Black-footed cats are highly unsociable animals that seek refuge at the slightest disturbance. However, when cornered they are known to defend themselves fiercely. Due to this habit and their courage, they are called "miershooptier" (anthill tigers) in parts of the South African Karoo, although they rarely use termite mounds for cover or for bearing their young. A San legend claims that a black-footed cat can kill a giraffe by piercing its jugular. This exaggeration is intended to emphasize the bravery and tenacity of the animal.^[10]

Within one year a female covers an average range of 10 km² (3.9 sq mi), a resident male 22 km² (8.5 sq mi). The range of an adult male overlaps the ranges of one to four females.^[3] On average, the animal travels 8 km (5.0 mi) per night in search of prey. The cats use scent marking throughout their range, with males spraying urine up to twelve times an hour. Other forms of scent marking include rubbing objects, raking with claws and depositing faeces in visible locations. Their calls are louder than for other cats of their size, presumably to allow them to call over relatively large distances. However, when close to each other, they use quieter purrs or gurgles, or hiss and growl if threatened.^[7]



Adult black-footed cat resting

Diet and hunting

Due to their small size, black-footed cats hunt mainly small prey species like rodents and small birds, but may also take the White-quilled Bustard and the Cape Hare, the latter heavier than itself. Insects and spiders provide less than 1% of the prey mass consumed.^{[11] [12]} They are unusually active hunters, killing up to fourteen small animals in a night. Their energy requirements are very high, with about 250 grams (9 oz) of prey per night consumed, which is about a sixth of its average body weight.^[7]

Black-footed cats hunt mainly by stalking, rather than ambush, using the cover of darkness and all available traces of cover to approach their prey before the final pounce. They have been observed to hunt by moving swiftly to flush prey from cover, but also to slowly stalk through tufts of vegetation. Less commonly, they will wait outside rodent burrows, often with their eyes closed, but remaining alert for the slightest sound.^[8] In common with the big cats, but unlike most other small species, black-footed cats have been observed to hide some of their captured prey for later feeding, rather than consuming it immediately.^[11]

Reproduction and life cycle

Black-footed cats have lived for ten years in captivity. Females reach sexual maturity after eight to twelve months. They come into estrus for only one or two days at a time, and are receptive to mating for a few hours requiring males to locate them quickly. Copulation occurs frequently during this period. Gestation lasts from 63 to 68 days. A litter consists usually of two kittens,^[9] but may vary from one to four young. Kittens weigh 60 to 84 grams (2.1 to 3.0 oz) at birth. They are born blind and relatively helpless, although they are able to crawl about after just a few hours. They are able to walk within two weeks, begin taking solid food after about a month, and are fully weaned by two months of age.^[13]

Females may have up to two litters during the spring, summer and autumn. They rear their kittens in a burrow, moving them to new locations regularly after the first week. In general, kittens develop more rapidly than in other similarly sized cats, quickly adapting them to a relatively hostile environment. They become independent by 5 months of age but may remain within their mother's range.^[7]

Conservation

Felis nigripes is included on CITES Appendix I and protected by national legislation across most of its range. Hunting is banned in Botswana and South Africa.^[2]

Research

The Black-footed Cat Working Group carries out a research project at *Benfontein Nature Reserve* and *Nuwejaarsfontein Farm* in central South Africa, where seven black-footed cats have been radio-collared. This project is part of a multidisciplinary effort to study the distribution, ecology, health, and reproduction of black-footed cats over an extended period.^[14]

In Captivity

Wuppertal Zoo acquired Black-footed Cats as long ago as 1957.^[15] Six years later, in 1963, it succeeded in breeding them. To date, more than 140 kittens were born in 73 litters.^[15]

In 1993, the European Endangered Species Programme (EEP) was formed to coordinate which animals are best suited for pairing in order to maintain genetic diversity and to avoid inbreeding. The *International Studbook* for the black-footed cat is kept in the German Wuppertal Zoo.^[16] Since 1974 detailed records exist for a total of 447 cats.^[15]

On February 13, 2011, a female kept at the Audubon Nature Institute gave birth to two male kittens. This birth was significant in that the kittens are the first of their species to be born as a result of in vitro fertilization utilizing frozen and thawed sperm and frozen and thawed embryos. In 2003, the sperm was collected from a male and then frozen.

At the Audubon Nature Institute it was later combined with an egg from a female, creating embryos in March 2005. Those embryos were frozen for almost six years before being thawed and transferred to a surrogate female in December 2010, who carried the embryos to term, resulting in the birth of the two kittens. Scientists hope this will provide a means for them to increase the species numbers, as well as introduce greater genetic variation into the small population.^[17]

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External links

- Black-footed Cat Working Group: Information about field research of Black-footed cats in South Africa (<http://black-footed-cat.wild-cat.org>)
- IUCN/SSC Cat Specialist Group - Cat Species Information: *Felis nigripes* (<http://lynx.uio.no/lynx/catsgportal/cat-website/catfolk/nigripe1.htm>)
- Arkive Species Information: *Black-footed cat* (<http://www.arkive.org/black-footed-cat/felis-nigripes/>)
- BBC Science & Nature: *Black-footed cat, small-spotted cat* (<http://www.bbc.co.uk/nature/wildfacts/factfiles/25.shtml>)
- Animal Info: *Felis nigripes* (<http://www.animalinfo.org/species/carnivor/felinigr.htm>)

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