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## *Felis nigripes*, Black-footed Cat

Assessment by: Sliwa, A.



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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Mammalia	Carnivora	Felidae

**Taxon Name:** *Felis nigripes* Burchell, 1824

### Common Name(s):

- English: Black-footed Cat, Small-spotted Cat
- French: Chat À Pieds Noirs
- Spanish: Gato De Pies Negros, Gato Patinegro

### Taxonomic Notes:

Placed in the genus *Felis* according to genetic analysis (Johnson *et al.* 2006, O'Brien and Johnson 2007, Eizirik *et al.* submitted).

## Assessment Information

**Red List Category & Criteria:** Vulnerable C2a(i) [ver 3.1](#)

**Year Published:** 2008

**Date Assessed:** June 30, 2008

### Justification:

There are few historical or recent records from which to judge, but the black-footed cat appears to have a relatively restricted and patchy distribution, and its total effective population size may be fewer than 10,000 mature individuals, with a declining trend due to loss of prey base and persecution, and no subpopulation containing more than 1,000 mature individuals (A. Sliwa pers. comm. 2007).

### Previously Published Red List Assessments

2002 – Vulnerable (VU)

1996 – Lower Risk/least concern (LR/lc)

## Geographic Range

### Range Description:

The black-footed cat is endemic to southern Africa. The species is found primarily in Namibia and South Africa, but also Botswana (where there are historical records but no recent ones), and marginally in Zimbabwe and likely marginally in extreme southern Angola (Sliwa 2008, B. Wilson and A. Sliwa pers. comm. 2007).

### Country Occurrence:

**Native:** Angola (Angola); Botswana; Namibia; South Africa; Zimbabwe

# Distribution Map

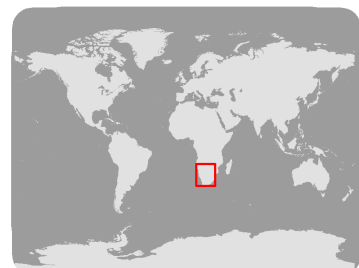


## *Felis nigripes*

Range  
 Extant (resident)

Compiled by:  
 IUCN (International Union for Conservation of Nature)

NE	DD	LC	NT	<b>&lt; VU &gt;</b> VULNERABLE	EN	CR	EW	EX
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The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



## Population

The black-footed cat is rare compared to the other small cats of southern Africa (Sliwa 2008). There has been only one field study of the black-footed cat, on a game farm in central South Africa, with the research period spanning more than a decade (Sliwa *et al.* 2007), and over 17,000 fixes and 1,600 hours of observation of radio-collared and habituated cats. In his 60 km<sup>2</sup> study area, Sliwa (2004) found the density of adult cats to be 0.17 per km<sup>2</sup>. In low-quality habitat densities are possibly very much lower (Sliwa 2008).

**Current Population Trend:** Decreasing

## Habitat and Ecology (see Appendix for additional information)

The black-footed cat is a specialist of open, short grass areas with an abundance of small rodents and ground-roosting birds. It inhabits dry, open savanna, grasslands and Karoo semi-desert with sparse shrub and tree cover and a mean annual rainfall of between 100 and 500 mm at altitudes of 0-2,000 m. It is not found in the driest and sandiest parts of the Namib and Kalahari Deserts (Sliwa 2008).

During a 6-year field study on the game farm in central South Africa, 1725 prey items were observed consumed by 17 free-ranging habituated black-footed cats. Average prey size was 24.1 g. Eight males fed on significantly larger prey (27.9 g) than 9 females (20.8 g). Fifty-four prey species were classified by their average mass into 8 different size classes, 3 for mammals, 3 for birds, 1 for amphibians/reptiles, and 1 for invertebrates. Small mammals (5-40 g) constituted the most important prey class (39%) of total prey biomass followed by larger mammals (> 100 g; 17%) and small birds (40 g; 16%). Mammals and birds pooled comprised 72% and 26% of total prey biomass, respectively, whereas invertebrates and amphibians/reptiles combined constituted just 2% of total prey mass consumed. Heterotherm prey items were unavailable during winter, when larger birds and mammals (> 100 g) were mainly consumed. Small rodents like the large-eared mouse (*Malacothrix typica*), captured 595 times by both sexes, were particularly important during the reproductive season for females with kittens. Male black-footed cats showed less variation between prey size classes consumed among climatic seasons. This sex-specific difference in prey size consumption may help to reduce intra-specific competition (Sliwa 2006). In terms of interspecific competition, Sliwa *et al.* (2007) found that black-footed cats captured smaller prey on average than African wildcats, although both captured approximately the same number (12-13) of prey species per night.

Black-footed cats are solitary, except for females with dependent kittens, and during mating. Males have larger annual home ranges (20.7 km<sup>2</sup>; n=5) than females (10.0 km<sup>2</sup>, n=7) (Sliwa 2004). Adults travel an average of 8.42±/ 2.09 km per night - more distance than the African wildcat (5.1 ±/ 3.35 km per night) despite their smaller size, although some wildcats travelled very far (17.37 per km longest distance, as opposed to the black-footed at's 14.61 km) (Sliwa *et al.* 2007).

Male ranges overlap those of 1-4 females. Intra-sexual overlap varies from 12.9% for three males to 40.4% for five females. Home-range size is likely to vary between regions according to resources available to the individuals (Sliwa 2004). Kittens are independent after 3-4 months, but remain within the range of their mother for extended periods (Sliwa 2008).

The black-footed cat is one of the world's smallest cats, with females weighing an average of 1.3 kg and

males larger at 1.93 kg (Sliwa 2008). The conspecific and more common African wildcat is considerably larger (females - 3.9 kg; males - 5.1 kg) (Sliwa *et al.* 2007).

**Systems:** Terrestrial

### **Threats (see Appendix for additional information)**

Black-footed cats are threatened primarily by habitat degradation by grazing and agriculture, as well as by poison and other indiscriminate methods of pest control (Nowell and Jackson 1996, Sliwa 2008).

### **Conservation Actions (see Appendix for additional information)**

Included on CITES Appendix I and protected by national legislation across most of its range (Nowell and Jackson 1996). Hunting of this species is banned in Botswana and South Africa.

Recommended conservation measures include more fine scale distributional studies particularly in Namibia and Botswana, as well as a second ecological study in a different habitat than Sliwa (2004), preferably in areas of lower rainfall more typical of the current predicted range (A. Sliwa pers. comm. 2007).

The species is recorded from several protected areas, including Karoo National Park, Mountain Zebra National Park, and Addo Elephant National Park in South Africa, and Makgadikgadi Pans (Botswana). To date, there are no confirmed records for the Kgalagadi Transfrontier Park (Botswana/South Africa) or Central Kalahari Game Reserve (Botswana) (A. Sliwa pers. comm. 2007).

### **Credits**

**Assessor(s):** Sliwa, A.

**Reviewer(s):** Nowell, K., Breitenmoser-Wursten, C., Breitenmoser, U. (Cat Red List Authority) & Hoffmann, M. (Global Mammal Assessment Team)

## Bibliography

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## Appendix

### Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
2. Savanna -> 2.1. Savanna - Dry	-	Suitable	-
4. Grassland -> 4.5. Grassland - Subtropical/Tropical Dry	-	Suitable	-
8. Desert -> 8.1. Desert - Hot	-	Suitable	-

### Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.1. Nomadic grazing	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.2. Small-holder grazing, ranching or farming	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
2. Agriculture & aquaculture -> 2.3. Livestock farming & ranching -> 2.3.3. Agro-industry grazing, ranching or farming	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.2. Unintentional effects (species is not the target)	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
5. Biological resource use -> 5.1. Hunting & trapping terrestrial animals -> 5.1.3. Persecution/control	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.1. Species mortality		
8. Invasive & other problematic species & genes -> 8.2. Problematic native species	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation		



## Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Actions in Place</b>
In-Place Species Management
Subject to ex-situ conservation: Yes
In-Place Education
Included in international legislation: Yes
Subject to any international management/trade controls: Yes

## Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Conservation Actions Needed</b>
2. Land/water management -> 2.3. Habitat & natural process restoration
4. Education & awareness -> 4.3. Awareness & communications

## Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

<b>Research Needed</b>
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends

## Additional Data Fields

<b>Population</b>
Population severely fragmented: Yes

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