Notes on the Natural History and Conservation Status of Pampas Cat, *Oncifelis colocolo*, in the Brazilian Cerrado

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The pampas cat, *Oncifelis colocolo* is a small (3-3.8 kg) South American felid that ranges from Ecuador to southern Argentina, through Andean Peru, Bolivia, Paraguay, central and southern Brazil, Uruguay to Chile and southern Argentina, from sea-level up to 5,000 m of altitude (Pearson 1951, Cabrera 1957, Nowak 1999, Oliveira 1994, Eisenberg & Redford 1999). Nevertheless,

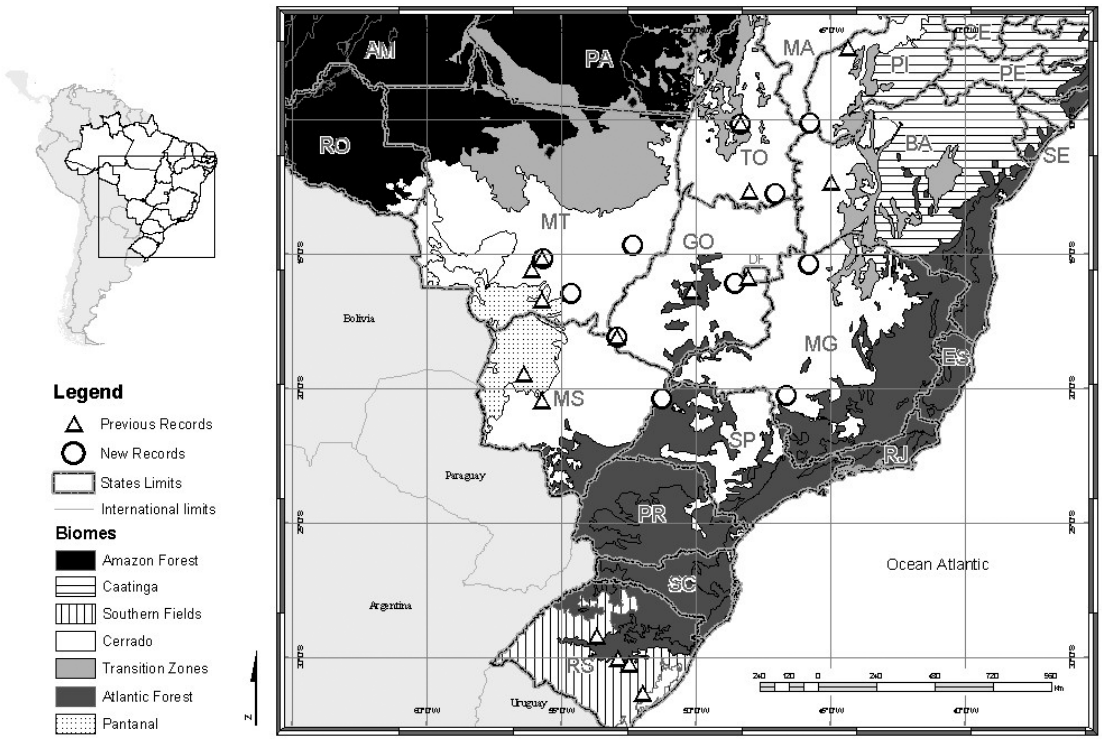

FIG. 1 – Records of Pampas Cat, *Oncifelis colocolo*, in Brazil.

despite its wide range, it still remains one of the least studied Neotropical cats (Silveira 1995, Nowell & Jackson 1996). Pampas cat seems to be rare in Brazil, where it is considered threatened (Bernardes *et al*. 1990), but tends to be more common in the temperate parts of its range (Oliveira 1994).

Herein we present new records on the geographic distribution, habitat utilization, diet, and external measurements of *O. colocolo* in the Cerrado of Central Brazil (Fig. 1). Data were obtained from twenty-eight records [nine road killed individuals, seven sightings, two captures (Tadeu Oliveira, pers. comm.), nine tracks and one skin acquired from hunters – Table 1]. Although the pampas cat shares its habitat with sympatric small wild felids, there are significant differences in their prints, reflected from morphological and biometric differences (Rogerio de Paula, unpublished data). Four road killed specimens were deposited in scientific collections: UNB 1741 and UNB 1742, from Palmas, Tocantins State (deposited in mammal collection of Universidade de Brasília, Distrito Federal); JD 346, from Chapada dos Guimarães, Mato Grosso State (in mammal collection reference of Institute of Bionciences of Universidade do Mato Grosso); and MN 63629, from Emas National Park, Goiás State (in Museu Nacional – Universidade Federal do Rio de Janeiro).

The Cerrado biome occupies an area of 2,000,000 km^2 distributed through Brazil, Paraguay and Bolivia, with altitudes varying from 200 to more than 1,600 m (IBGE 1977, Ribeiro & Walter 1998). It consists of is a mosaic of vegetation types, ranging from open grasslands ("campo limpo" – only grass and herbs cover; "campo sujo" – cover of grass and bushes in low densities) and savanna-like vegetation ("campo cerrado" – grass with low densities of bushes and

TABLE 1. – Records of Pampas Cat, *Oncifelis colocolo* in Brazilian Cerrado, from 1985 to 2002.

Local	Coordinates	Date	Habitat	Type records
Highway BR 364, Chapada dos Guimarães – Mato Grosso	(15°10' S, 55°40' W)	1985	Savanna	Road kill
Rondonópolis – Mato Grosso	(16°29' S, 54°37' W)	February 1993	Savanna	Capture
Emas National Park – Goiás	(17°50' S, 18°15' W)	February 1995	Grassland	Sighting
Ilha Solteira – São Paulo	(20°4' S, 51°7' W)	February 1996	Savanna	Capture
Emas National Park – Goiás	(17°50' S, 18°15' W)	1998	Grassland	Sighting
Highway BR 158, Nova Xavantina – Mato Grosso	(14°41' S, 52°20' W)	1998	Savanna and cattle pastures	Road kill
Grande Sertão Veredas National Park – Minas Gerais	(15°22' S, 45°49' W)	October 1998	Savanna	Sighting
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	June 1999	Savanna	Sighting
BR 060 Abadiânia/Alexânia – Goiás	(16°06' S, 48°34' W)	July 1999	Savanna and cattle pastures	Road kill
Highway TO 010, Palmas – Tocantins	(10°10' S, 48°20' W)	July 1999	Pastures	Road kill
TO 040, Palmas – Tocantins	(10°10' S, 48°20' W)	July 1999	Savanna and cattle pastures	Road kill
TO 050, Palmas – Tocantins	(10°10' S, 48°20' W)	July 1999	Savanna and cattle pastures	Road kill
Emas National Park – Goiás	(17°50' S, 18°15' W)	April 2000	Grassland	Road kill
Emas National Park – Goiás	(17°50' S, 18°15' W)	April 2000	Agriculture	Sighting
Emas National Park – Goiás	(17°50' S, 18°15' W)	July 2000	Grassland/ agriculture	Sighting
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	February 2001	Savanna	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	February 2001	Savanna	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	March 2001	Grassland	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	March 2001	Savanna	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	April 2001	Savanna	Track
TO 050, Palmas – Tocantins	(9°48' S, 48°21' W)	May 2001	Savanna	Road kill
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	May 2001	Savanna	Sighting
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	May 2001	Savanna	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	June 2001	Savanna	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	July 2001	Grassland	Track
Serra da Canastra National Park – Minas Gerais	(20° S, 46°15' W)	July 2001	Savanna	Track
Barreiras do Piauí – Piauí	(10°08' S, 45°46' W)	September 2001	Savanna	Skin
BR 242, Arrarias – Tocantins	(12°47' S, 47°03' W)	March 2002	Savanna	Road kill

trees; "cerrado *sensu stricto*" – savanna with trees up to four meters, grass and bushes; "cerradão" – woodlands with low or none cover of grass) to forests (Eiten 1993).

We recorded the Pampas Cat only in open areas (Table 1), as already cited by Silveira (1995), but it could be found both in natural areas, like open grasslands (17.9%) and savanna (cerrado *sensu stricto* – 57.1%) and in disturbed areas, such as pastures (3.6%) and agricultural fields (3.6%), or in edges of grasslands and agricultural fields (3.6%) and savanna and pastures (14.3%), demonstrating that this species is able to use human altered habitats. In Brazil, the Pampas Cat inhabits open areas, like the grasslands of the Pampas, the marshy Pantanal, and specially the savannas of the Cerrado biome (this study, Silveira 1995). However, in other range countries within its distribution range it is found in a broader variety of habitats, from humid forests to high altitude semiarid scrub (Oliveira 1994).

The diet is said to include primarily small rodents and ground birds (Ihering 1892, Cabrera & Yepes 1960, Silva 1994, Romo 1995). We obtained stomachs contents data from four road killed individuals. The first ingested two lizards, a Teiidae (fragments of *Ameiva* sp. or *Cnemidophorus* sp.) and a Tropiduridae (*Tropidurus* sp.). The second stomach contained a tegu lizard (*Tupinambis* sp.), a colubrid snake (unidentified), and plant material (unidentified grass). The third contained a diurnal and crepuscular rodent (*Cavia* sp.). The fourth contained a tinamous (*Nothura* sp.) and fragments of an unidentified rodent and of beetles. Although predation on small caviomorph rodents (*Cavia* genus) had been previously recorded in anecdotal studies (Ihering 1892, Cabrera & Yepes 1960), as well as ground dwelling birds, such as tinamous (Cabrera & Yepes 1960), consumption of reptiles is reported for the first time. All the preys recorded in pampas cat stomachs in these study can be associated to natural and human transformed habitats.

In relation to the activity time, three sightings were at night (19:00, 20:00 and 22:00h), whereas four were in daytime (07:45, 08:00, 16:00 and 18:00h), in agreement with the literature (Silveira 1995). Additionally, prey taken also suggests both nocturnal and diurnal activity pattern.

Road kills represents a source of mortality for mammals, especially carnivores (Vieira 1996, Rodrigues *et al*. 2002), and seems to be an important threat for pampas cat conservation. We recorded seven specimens of *O. colocolo* killed in roads and other studies also recorded Pampas Cats road killed (Fischer 1997). Considering that Pampas Cat is a rare species in Brazil, road mortality may represent a strong impact for some populations. However, the primary threat to Pampas Cat conservation should still be habitat destruction. The species in Brazil is frequently associated to open habitats. The Emas National Park, where this species is commonly observed, the Grande Sertão Veredas National Park and the Serra da Canastra National Park are covered by large extensions of open grasslands and savanna habitats, representing though important areas for its conservation in Brazil. These open vegetation formations are becoming very scarce due to machinery because agricultural expansion. Myers *et al*. (2000) estimates that about 80% of the Cerrado biome is already altered by human activities. Although this species can cross human disturbed areas between natural fragments, probably it does not survive in landscapes dominated totally by pastures or agriculture fields. The conservation of the pampas cat in Brazil depends on the preservation and maintenance of natural grasslands and other habitats that still exist in the Cerrado biome.

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