Prey of leopards in the western Soutpansberg, South Africa

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Scat analysis was used to determine the prey of leopards *Panthera pardus* in the western Soutpansberg mountains. A total of 63 scats were collected in August/September. Rock hyraxes were the most frequently occurring prey, with antelope the next most important group.

Les proies des léopards dans le Soutpansberg occidental en Afrique du sud.- L'analyse des fèces a été utilisée pour déterminer les proies du léopard *Panthera pardus* dans les montagnes du Soutpansberg occidental. Un total of 63 fèces ont été récoltées en août/septembre. Rock hyraxes furent les proies les plus fréquemment trouvées, avec les antilopes venant en second.

Key words: *Panthera pardus,* rock hyrax, antelope, scat analysis, diet.

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INTRODUCTION

Leopards *Panthera pardus* are still fairly abundant in the western Soutpansberg range, north-western Transvaal (pers. obs.).

These cats are opportunistic feeders, preying on a wide range of mammals, and to a lesser extent birds, reptiles, invertebrates and carrion (Bothma & Le Riche, 1984; Grobler & Wilson, 1972; Norton,Lawson,Henley & Avery, 1986). This flexibility in diet and their secretive habits has enabled the leopard to survive where other large carnivores have disappeared.

In the present study scat analysis was used to investigate the prey of the leopard in the Soutpansberg, Northern Transvaal of South Africa.

STUDY AREA

The Soutpansberg mountain range is located in the far northern Transvaal, South Africa. The range is surrounded by flat, open plains. This study was undertaken on the private game-ranch, Lesheba Wilderness, which lies in the western reaches of the mountains. The terrain consists of wide, open grassed valleys with scattered trees and woodland patches, rugged gorges, cliffs and small forest patches.

METHODS

Leopard scats were collected opportunistically along trails and jeep-tracks and placed individually in plastic bags. A total of 63 scats were collected in August/September.

Scats were soaked in water until soft and then gently broken up and washed through a fine sieve to remove sand and other unidentifiable fragments.

Identifiable remains, such as bone fragments, teeth, nails, hoofs and feathers were separated. In addition hair samples were compared with a reference collection under the microscope.

Hyrax were most often identified by the presence of their characteristic footpads, teeth, toenails and the distal end of the humerus with its distinctive supracochlear foramen.

Percentage occurrence of different items in scats is presented.

RESULTS

A total of 63 leopard scats were collected of which one consisted only of sand and grass. In most samples only a single prey item was identified. Analysis of the scats showed that a wide range of mammals were taken (Table 1). Hyrax (no attempt was made to differentiate between *Procavia capensis* and *Heterohyrax brucei*) were present in 27 samples (43%) and this is a clear reflection of their abundance. Antelope remains were identified in 19 scats (30%) and seven species were involved. Bushbuck (*Tragelaphus scriptus*) made up over one third of this total (13%).

Primates were represented by two savanna baboons (*Papio ursinus*) and a single vervet monkey (*Cercopithecus aethiops*). Only one carnivore (aardwolf *Proteles cristatus*) was identified. Samples in 10 scats contained unidentified hair and bone fragments.

Table 1. - Number and frequency of different preys in leopards scats from the western soutpansberg

Prey species	Names	Number	Percentage
Hyrax		27	42,8
Procavia			
Heterohyrax			
Unidentified hair and bonefragments		10	15,8
Antelope			
Bushbuck	*Tragelaphus scriptus*	8	12,7
Mt. Reedbuck	*Redunca fulvorufula*	3	4,8
Klipspringer	*Oreotragus oreotragus*	2	3,2
Sharpe's Grysbok	*Raphicerus sharpei*	2	3,2
Common Duiker	*Sylvicapra grimmia*	2	3,2
Red Duiker	*Cephalophus natalensis*	1	1,6
Impala	*Aepycerus melampus*	1	1,6
Primates			
Baboon	*Papio ursinus*	2	3,2
Vervet Monkey	*Cercopithecus aethiops*	1	1,6
Rodents			
Porcupine	*Hystrix africae-australis*	1	1,6
Unident. Rodent		1	1,6
Carnivores			
Aardwolf	*Proteles cristatus*	1	1,6
Lagomorphs			
Scrub Have	*Lepus saxatilis*	1	1,6
Total scats		63	100

DISCUSSION

Scat analysis showed that the most frequent prey of leopards in the present study were hyrax, followed by small- and medium-sized antelopes and small numbers of other mammals.

The frequencies of the principal prey items in the scats are similar to those obtained in previous studies (Grobler & Wilson, 1972; Norton *et al.* 1986).

The fact that hyrax are almost entirely diurnal and spend the night in inaccesible holes (Sale, 1970) means that much of leopard hunting in the Soutpansberg takes place during the daylight hours.

The low frequency of baboon remains in the scats suggests that baboons are able to avoid predation by leopards, possibly due to their cooperative mobbing behaviour (Kingdon, 1971). Study clearly refutes a popular belief that baboons are the major prey of leopards, and supports the suggestion of Hamilton (1976) that " the belief that leopards feed largely on baboons... and thereby keep their numbers down...has become part of the leopards' mythology!" Nevertheless, it is likely that leopards may have an important effect on the selection of resting places, and therefore movements, of baboon troops (Smithers, 1983).

The pattern of feeding of leopards in the Soutpansberg seems, therefore, to follow the statement of Grobler & Wilson (1972) that leopards appear to be opportunistic and will take virtually any consumable animal they may encounter, but show preference for small to medium-sized mammals.

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