

Series: 4-003/1

FEEDING ECOLOGY OF THE LEOPARD

Diet

The leopard has the most varied diet of the large cats, which may be one reason why it is the only large cat that is still found in areas of relatively high human population density.

Like any other carnivore, the leopard is an opportunistic feeder, which means that it eats the most commonly available prey.

Some of the most important aspects of the diet of leopards include:

- Leopards prefer medium-sized mammals (mostly hooved animals) but will shift their diet to smaller prey (rabbits/hares and rodents) when larger prey becomes scarce. Females with cubs also switch to smaller prey to increase foraging efficiency.
- In areas where other large predators are absent, they may prey on larger antelope species such as kudu and hartebeest.
- With large prey species or species that are difficult to kill, such as warthogs and baboons (because they are active only during the day and due to their aggressive behaviour), leopards kill mostly the young and yearlings.
- They appear to have a strong preference for rock hyrax (dassie) in areas where this prey species is plentiful.
- In drier areas, leopards also prey on porcupine and sometimes on aardvark.
- Leopards kill and sometimes eat smaller carnivores such as cheetah, caracal, black-backed jackal, genet and mongoose.
- Although leopards are not known as scavengers, they have been observed scavenging on carcasses of animals killed by farmers or wildlife ranchers. They have also been observed scavenging at dumpsites on farms and at abandoned campsites.
- Although leopards do sometimes eat non-mammalian prey such as birds, reptiles, insects etc., such prey make up a very small percentage of the diet
- In general, leopards do not target domestic livestock, but particular individuals may develop a livestock raiding habit. Mass killings of livestock have been reported.

Just like black-backed jackals (see Series 1-003/1 *Feeding ecology of the black-backed jackal*) and caracals (see Series 2-003/1 *Feeding ecology of the caracal*), leopards switch prey and start eating a wider variety of prey species when preferred prey species become scarce.

Leopards prefer densely vegetated areas to hunt. Therefore, leopards will hunt and eat more bushbuck than impala in areas where both these prey species are found (Limpopo, for example), even when impala is more abundant.

A recent study found that a leopard's diet depends not only on the prey found in its home range, but also on the prey preferences of that individual leopard.

The influence of land-use on diet

As is also the case with black-backed jackal (see Series 1-003/1 *Feeding ecology of the black-backed jackal*), leopard diets differ among regions as well as different land-use types.

- In the mountainous protected areas of the Western Cape, such as the Cederberg and Gamka mountains, leopards prefer rock hyrax and klipspringer.
- In Namaqualand, rock hyrax and medium-sized antelope such as klipspringer, steenbok and duiker are preferred prey in protected areas.
- On farmland in the Little Karoo (Western Cape), rock hyrax and bush rats, kudu and eland are the main prey, and baboon and duiker are also commonly killed by leopards.
- On game ranches in the Waterberg region of Limpopo, kudu, bushbuck and warthog are the preferred prey species. Rodents, primates and other small mammals make up only a small part of leopards' diet.
- In the Soutpansberg Mountains of Limpopo, leopards feed mainly on bushbuck, hyrax and vervet monkeys. No rabbits/hares, birds or reptiles were found in the diet.

On farmlands, where natural prey may be scarce, leopards sometimes prey on livestock. Livestock such as calves, sheep and goats are all within the weight range of prey preferred by leopards (10-40 kg). But studies across South Africa, as well as studies in other African countries, found that no or very little livestock was present in the diet of leopards on farmland.

- The largest amount of livestock in leopard diet was reported in the Little Karoo (Western

Cape). Here, livestock (including donkey) made up 10-15% of their diet. A recent study found that, in contrast with the findings of a previous study in this area, large prey species (weighing more than 40 kg) were an important part of leopard diet. This may be explained by an increased amount of large prey available due to the introduction of large ungulates to game farms in the area.

- In other parts of the Western Cape, only a slight increase in livestock predation was found during times when natural prey numbers decrease.
- In Namaqualand, the availability of hyrax and medium-sized antelope was lower on farmlands than in protected areas. On farmland, they were replaced in the diet by small livestock and rabbits/hares, which were more abundant here.
- A study conducted in the Baviaanskloof Mega-Reserve in the Eastern Cape found that only farms bordering the reserve experienced livestock predation by leopards. Furthermore, predation by leopard made up only a small proportion of the total livestock losses on each of these farms.
- Despite domestic cattle and introduced game being common on farmland in the Soutpansberg Mountains (Limpopo), no farmed game species or livestock were detected in the diet.
- No livestock was detected in the diet of leopards in the Waterberg region of Limpopo, although farmers/ranchers here reported livestock losses of about 2% to leopards.

Smaller carnivores, particularly caracal, can compete with the leopard for food. Where such predators are abundant, they are preyed upon by leopards, eliminating competition for food.

- In Namaqualand, small-spotted genet, yellow mongoose, striped polecat and caracal were found in leopard diet. Leopards in this area possibly preyed on these predators because of a lack of other suitable prey on farmlands, or because they are drawn to farmlands by the increased food (livestock) and water sources on the farmlands.
- Despite reports of leopards preying on black-backed jackal in the Waterberg region (Limpopo), no jackal remains were found in leopard scats. Jackals are not common in this

area due to persecution by farmers. Slender mongoose was the only predator species found in leopard diet in this region.

- No carnivores were detected in the diet of leopards in the Soutpansberg Mountains of Limpopo.

Feeding behaviour

Leopards usually eat a small prey item immediately. Larger kills are dragged (sometimes several hundred meters) to caves or specific types of trees or bushes, and cached for feeding in safety. In Kruger National Park, where many different species of large predators are found, most kills are dragged into trees. In areas where larger predators are less common, however, leopards hide their kills under bushes.

The diet of the leopard overlaps with the diet of:

- Black-backed jackal
- Caracal
- African lion
- Spotted hyaena
- African wild dog

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Consult your local DEFF (environmental affairs) or DARDLR (department of agriculture) office for legal aspects regarding predation management