



# A landowner's guide to the LEOPARDS OF THE WESTERN CAPE (*Panthera pardus pardus*)

— APEX PREDATOR IN THE FYNBOS BIOME

### PREDATORS ARE AN INTEGRAL FACET OF ANY WELL-FUNCTIONING ECOSYSTEM.

Hundreds of years ago, the Western Cape was home to many large mammal species including predators such as lions (*Panthera leo*), wild dogs (*Lycaon pictus*), cheetah (*Acinonyx jubatus*) and hyaenas (*Crocuta crocuta*; *Hyaena brunnea*). Cheetah, spotted hyaena and wild dogs are extinct in the wild in the Western Cape. The leopard is a top or apex predator in the Fynbos ecosystem.

*Their versatility, adaptability and elusive nature have enabled them to survive in the remaining natural mountain habitat despite over 300 years of persecution and habitat loss.*

### Are the leopards of the Western Cape a different subspecies?

All leopards on the African continent are currently taxonomically assigned to a single subspecies, *Panthera pardus pardus*. A study by Martins (2006) on the conservation genetics of leopards in South Africa revealed interesting new data about local genetic diversity and population structuring. This study suggests that leopards in the Western Cape are genetically distinct from populations in the Eastern Cape, Kwazulu-Natal, Limpopo and Mpumalanga regions and recommends that the Western Cape population be managed as a separate unit. Apart from the genetic difference, the Western Cape leopard population also differs morphologically from other populations. The leopards in the Western Cape are small and on average half the mass of leopards in the Kruger National Park (leopard males: average 35kg; leopard females: average 24kg).

### Are leopards a threatened species?

Leopards in Africa are classified as *Near Threatened* on the International Union for Conservation of Nature's (IUCN) Red List of Threatened Species. It is an adaptable and widespread species; however, the persistence of certain subpopulations is threatened by habitat loss, habitat fragmentation, hunting for trade and persecution.

### How many leopards still exist in the Western Cape?

A study by Martins (2011) in the Cederberg region suggested that the leopards of the Western Cape utilise far larger home ranges (between 235 km<sup>2</sup> and 600 km<sup>2</sup>) than previously recorded and hence that the leopards here occur at lower population densities

than previously determined. In the wetter, Fynbos region of the western Cederberg Wilderness Area as well as in the Boland mountains, leopards have somewhat smaller ranges and the population density is therefore slightly higher. There is currently no definitive estimate for leopard numbers in the Western Cape, however data from recent leopard studies in three distinct mountain areas, suggest that there are fewer than 500 leopards in the Western Cape.



## DIET WHAT DO THE LEOPARDS OF THE WESTERN CAPE EAT?

Leopards are opportunistic and versatile hunters preying on species ranging from crickets, lizards and rodents to hares, porcupine and even ungulates as large as eland. Typically, they appear to take prey in proportion to availability in a given area. In the Boland, Cederberg and Gamka, diet studies indicated that klipspringer (*Oreotragus oreotragus*) and rock hyrax/*klipdassie* (*Procavia capensis*) are the main prey species for leopards. Porcupine (*Hystrix africae australis*) and Cape grysbok (*Raphicerus melanotis*) are more prominent components of leopard diet in the Boland.

Contrary to popular belief, baboon (*Papio ursinus ursinus*) is not a major component of the diet of the leopards in the Western Cape. Diet studies in the Western Cape indicate that baboons form less than 5% of leopard diet. Group-living behaviour, agility and long canines, make baboons a formidable target. Despite regular interaction, baboons are comparatively seldom preyed on by leopards and baboons tend to avoid them where possible.



A leopard in the Western Cape



Klipspringer



Porcupine



Rock hyrax



Grysbok

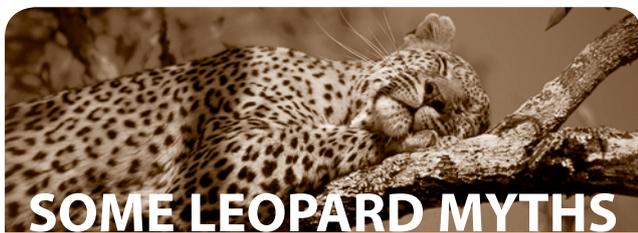


## Why is it important to conserve the leopards of the Western Cape?

Predators play an important role in maintaining the structure and functioning of ecosystems. Leopards are territorial and defend their territories against other leopards. Home ranges of males are larger than those of females and male home ranges may overlap the home ranges of a number of females. Same sex home ranges may also overlap but contact is generally actively avoided. Leopards have a regulating effect on smaller meso-predators like caracal and black-backed jackal, and sometimes prey on other carnivores such as bat-eared foxes (*Otocyon megalotis*), genets (*Genetta* spp.), aardwolves (*Proteles cristatus*) and cheetah. Leopards remove sick and weak animals from the ecosystem and by doing so they prevent the spreading of disease and support the persistence of genetically fit animals. When the top predators (leopards) are removed from the ecosystem, the pressure on the smaller predators is relieved, which can result in rapid population increases of these smaller predators, in turn affecting prey populations as well as small livestock farming. Livestock predation often results in retaliatory persecution of predators where control measures are often indiscriminate, impacting on the biodiversity of the area.

## Damage causing animals – a paradigm shift

Predators do threaten commercial and subsistence livestock farming, however, a move towards responsible livestock management and a holistic approach to problem animal control is essential – “Prevention is better than cure”. The holistic approach is aimed at targeting the implementation of cost effective mechanisms to reduce and prevent predation rather than to target the predators through eradication strategies. Mitigation measures include the use of non-lethal deterrents such as livestock guarding animals (Anatolian shepherd dogs, alpacas), kraals using electrified and predator proof fencing, traditional shepherding, and the conservation of natural prey species for predators.



## SOME LEOPARD MYTHS

- Leopards do not live in family groups – they are solitary, territorial animals. Two or more leopards are usually only observed together if it is a female with a cub, or a mating pair;
- Leopards do not “live” in any one particular place for extended periods and do not have caves to which they return to night after night. They are always on the move – patrolling their territories, finding food and looking for mates;
- Leopards in the Western Cape seldom hoist their prey into trees as there are not many suitable trees in their habitat. It is possible that hoisting is not necessary as they do not face competition from other large predators such as lions or hyenas that can steal their meal;
- Leopards in the Western Cape are not considered a threat to humans. However, despite their size, they are still immensely powerful and can be extremely fierce and dangerous when threatened or cornered. Fortunately they are exceptionally elusive and shy of people, and most reported sightings last only a few seconds. Very few people are lucky enough to catch a glimpse of a leopard; and
- Leopards do not suck the blood from their prey or from the prey’s neck. Their mouths are not adapted to do that.

## THREATS

### to the leopards of the Western Cape

- **Agricultural & urban development** has a direct impact on the leopard population through loss and fragmentation of habitat as well as a diminishing prey base;
- **Roads & traffic** are a threat acting as barriers to dispersing individuals, dissecting home ranges, and leading to vehicle-related mortalities;
- **Illegal setting of wire snares and gin traps** to capture small game animals for food, poses a threat to leopards. It depletes the leopards’ prey base, and leopards themselves can get caught, injured and killed in such snares;
- **Direct persecution** by some farmers in retaliation to livestock depredation;
- **Indiscriminate use of poisons and pesticides** impact the health of predator and prey populations;
- **Fire** is a natural and necessary part of the Fynbos ecosystem. Too-frequent large-scale veld fires have a negative impact on the health of the ecosystem. Dense stands of alien invasive plants often exacerbate the problem. The main impact of fires on leopards is most likely the loss of prey and the loss of vegetation cover for hunting; and
- **Injudicious translocation** of leopards may contribute to “genetic pollution” as well as cause direct mortalities due to translocated cats fighting with resident territorial animals, and killing cubs.



## What can private landowners do to aid conservation of leopards?

- Conserve natural vegetation on their properties;
- Educate permanent and seasonal farm labourers about the importance of biodiversity on their land;
- Proactively act against and report illegal snaring and hunting on their properties;
- Maintain fire breaks and eradicate alien vegetation that could intensify fires;
- Practice a responsible and holistic livestock management regime;
- Protect the natural prey on their properties, monitor impact on potential prey species and ensure that any off-takes are sustainable;
- Conserve corridors of natural veld between or around developed agricultural areas to allow for the movement of leopards and prey species; and
- Promote permeability of fences to allow for the free movement of predator and prey species in the landscape.

