The leopard is the largest remaining top predator in the Baviaanskloof Mega-Reserve (BMR), and it plays a key role in predator-prey relationships. In addition, as a member of the Big 5, the leopard is a valuable resource for the growing eco-tourism industry. However, leopards frequently come into conflict with livestock farmers, which often leads to them being killed. This causes concern regarding the future of the leopard in the BMR. For this reason a project was launched to investigate and understand the factors that influence leopard-stock farmer conflict in the BMR. Information was collected from farmers through interviews and questionnaires.

Photo: Adrian Shrader

Status of the leopard

Internationally the leopard is considered a 'near threatened' species and may become threatened with extinction in the near future. Consequently the international trade in any leopard products is restricted.

Locally the leopard is a legally protected animal that may not be hunted or killed without a permit from the Department of Economic Development and Environmental Affairs (DEDEA).

A Way Forward: Holistic Predator Management

Leopards need to be conserved within the BMR and on bordering farms in order to achieve a genetically viable population. This represents an opportunity for participatory management of the BMR, by involving landowners in the identification and implementation of solutions. This requires cooperation between the landowners, Eastern Cape Parks, the Department of Economic Development and Environmental Affairs, the Eastern Cape Agricultural Society and committed Non-Governmental Organisations, in order to establish an effective and holistic predator management scheme which will help to reduce stock losses to carnivores, and conserve carnivores at the same time. Such a management scheme should be focused mainly on adaptive management of those carnivores that cause the greatest stock loss in the BMR, namely the black-backed jackal and the caracal. This can be achieved by managing the losses attributed to leopards in such a way as to maintain leopards on the property. This, in turn, is likely to reduce the amount of stock lost to black-backed jackals and caracals.

Close cooperation between involved stakeholders regarding the reporting of stock losses will enable a better understanding of the financial implications of farmer-carnivore conflict and thereby mobilise support for those bearing the costs. This, in turn, will assist in the conservation of leopards and other carnivores.

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Living with Leopards in the Baviaanskloof - Eastern Cape -

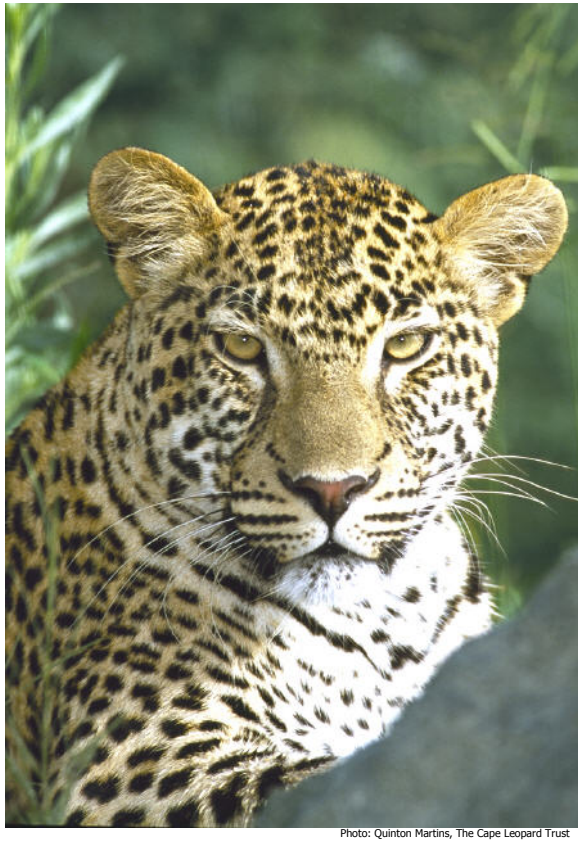

Photo: Quinton Martins, The Cape Leopard Trust

Report on the outcomes of a study on leopard-stock farmer interaction in the Baviaanskloof Mega-Reserve

WWF tmf FUNDING FYNBOS Centre for African Conservation Ecology Nelson Mandela Metropolitan University for tomorrow

Leopard - Stock Farmer Interaction in the BMR

Some Important Findings

Population size:

The actual number of leopards in the BMR is not known. One estimate is in the region of 10-17 individuals. This does not constitute a genetically viable population and confirms the importance of conserving these animals in the BMR, and on neighbouring farms. In the long term, this will also require a physical connection between the BMR leopard population and other nearby populations.

Habitat selection and stock losses:

Leopards tend to kill more livestock in the mountainous areas bordering the Baviaanskloof Nature Reserve, which is characterised by steep slopes, river courses, deep gorges, and thicket vegetation. This is probably due to the presence of a core leopard population in the BMR, with individual territories extending onto bordering farms, or individuals dispersing from the BMR. These areas are also more remote with less human activity. The stock in these areas may, therefore, be more vulnerable to predation than stock which is closer to human habitation.

Influence of leopards on other predators:

The presence of leopards appears to influence the amount of stock killed by other predators. The areas with leopard predation tend to have fewer stock losses from black-backed jackals and caracals. This may be because of competition between leopards and caracal for food, or avoidance between leopards and black-backed jackals. This can result in a substantial reduction in the total amount of stock lost, as leopards are only responsible for 5.9% of livestock losses, whereas black-backed jackals and caracals are, together, responsible for 57.5% (see Figure 1). Therefore, the presence of leopards can potentially reduce the amount of stock lost to other predators. For this reason, it would pay farmers to protect the leopards on their land.

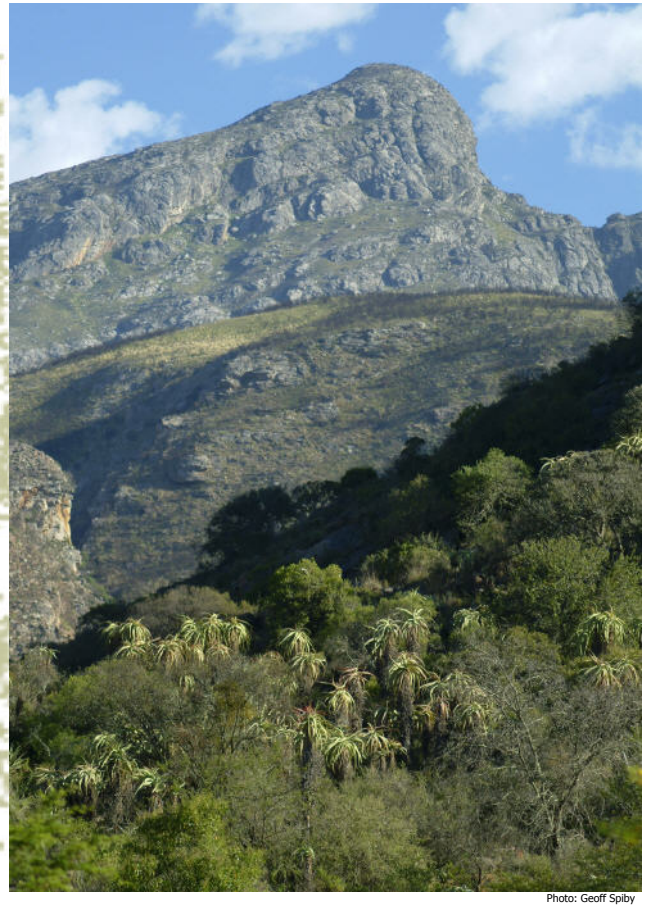

Photo: Geoff Spiby

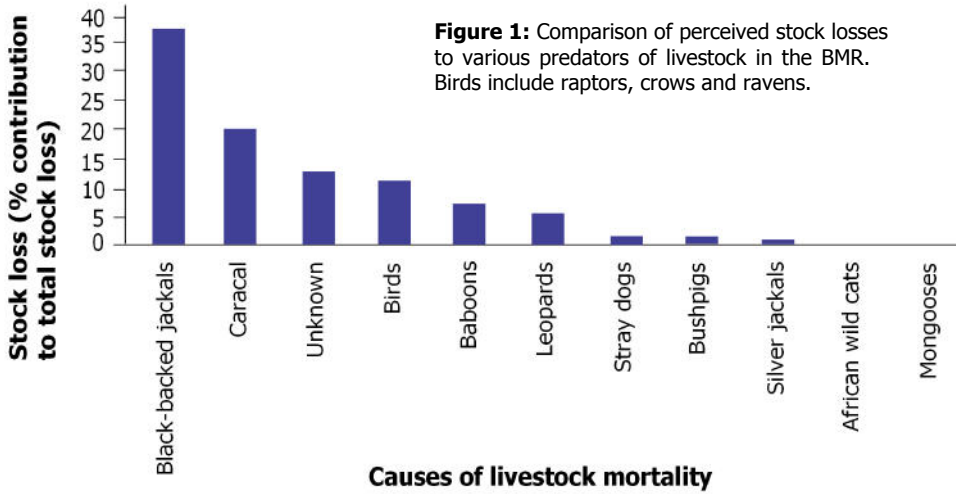

Figure 1: Comparison of perceived stock losses to various predators of livestock in the BMR. Birds include raptors, crows and ravens.

Predator and livestock management techniques

Based on an analysis of feedback from landowners, it was found that predator control and livestock management techniques that are applied in response to high levels of predation, have had limited success. It is recommended that an adaptive and holistic management approach is implemented to reduce stock losses to predators, as there is no single technique that will achieve this outcome. Some of the most effective techniques applied elsewhere are:

- Kraaling of stock in leopard proof kraals.
- Using Anatolian shepherd dogs to protect stock in the veld.
- Protecting the natural prey of the larger carnivores, especially mountain reedbuck, bushbuck, grysbok, and common duiker.

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