



# m&e case study

## Leopards: Working with farmers to protect a threatened species

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***Leopards have long been regarded as one of the most problematic animals for farmers. New approaches pioneered in the Cederberg have found ways of reducing this conflict. The establishment of the Greater Cederberg Conservation Corridor has contributed to this process.***

The protection of threatened species is an important objective of the C.A.P.E. partnership. In the Western Cape the leopard plays a critical ecological function as the apex predator. It is also a charismatic species which can play a valuable role in tourism and environmental education. The leopard is internationally listed as a threatened species under CITES<sup>i</sup> and is also listed as a vulnerable species under South African legislation (TOPS<sup>ii</sup>). Significantly smaller than those found further north, the Western Cape leopards may even comprise a separate sub-species.

Although healthy leopards seldom target livestock, when they do attack they often kill more than they eat, leading to substantial losses. This leads to significant conflict with farmers who in desperation often respond by killing any leopard found on their property. Gin traps aimed at leopard control are indiscriminate, injuring many other animals. As leopards have very large home ranges and can readily cross any fence, they cannot be conserved within isolated fenced reserves. Their survival therefore depends on the creation of large areas under leopard-friendly land management, which includes land belonging to private owners.

This case study describes an integrated approach to leopard conservation which has been piloted in the Cederberg of the Western Cape. This exciting initiative involves landowners, CapeNature, NGOs and researchers.

### A HISTORY OF CONFLICT

From the time European settlers first arrived in the Western Cape a substantial bounty was offered for any leopard ('tier') killed. This active encouragement of leopard control continued until the passing of a Conservation Ordinance<sup>iii</sup> in 1974. Under this ordinance farmers require a permit to kill a leopard. However, high numbers of farmers applied for permits, while many others just killed leopards illegally. Leopard numbers therefore continued to decline.

Typically, when leopards are killed, other predators rapidly move into the territory. Often in areas where leopard numbers are low, farmers experience high levels of predation by jackal and caracal, which are even more difficult to control. Population levels of these smaller predators are so high in some areas that prey populations have been decimated. This situation is exacerbated by drought conditions and mountain fires, which often lead to jackal and caracal learning to target stock. Furthermore, if leopards are trapped and released elsewhere, the relocated leopard is likely to disrupt social hierarchies in the new location, increasing the likelihood of conflict with farmers in the release area.

### A NEW INTEGRATED APPROACH

Research on Western Cape leopards, initiated by Dr Peter Norton in the early 1970s and 1980s, indicated that home ranges of leopards are much larger than previously realized. There were therefore fewer leopards than had been previously estimated on the basis of their distribution. It was evident that existing protected areas were too small to protect this species and that additional off-reserve conservation measures would be needed.

In response, in the mid 1980s, the first Leopard Conservation Area was established in the Cederberg. This area was chosen as the pilot area for off-reserve leopard conservation as it had the greatest level of conflict. In one year alone 25 permits had been issued to farmers giving permission to kill problem leopards. In 1987 CapeNature sent Jaco van Deventer to work with local farmers to reduce the level of conflict with leopard. A high level of interaction was required initially to gain the farmers' support.



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One of the first steps in gaining the farmers' trust was to provide an immediate response when a problem did occur. This ensured that leopards were not killed indiscriminately. This was supported by advice on how to reduce the potential for future conflict. The process established in the late 1980s has since become standard procedure:

When stock is killed by a leopard the farm is visited immediately to determine the nature of the problem. Management interventions, which sometimes include the trapping of so-called "problem animals", are applied. The trapped animal is then examined by a veterinarian. Infirm animals, which are unable to survive on wild prey, and are responsible for constant stock losses, are euthanized.

Leopards which are found to be healthy are released back into the same area. It has been found that the trauma (stress) caused by trapping a healthy animal is normally sufficient to prevent it returning to the site of the trap. The advantage to a farmer of this approach is that this "trained" leopard will in future avoid his stock. Furthermore, if this "trained" leopard remains in its original territory it will prevent other leopards from entering its territory, thereby acting as a "watchdog". Smaller predators, such as caracal and jackal, are also controlled by the presence of a leopard. In addition to trapping problem leopards, conflict can be reduced by:

- Protecting livestock in a kraal at night, particularly during lambing.
- Keeping aggressive species, such as donkeys or alpacas, with small stock<sup>iv</sup>.
- Using Anatolian shepherd dogs which stay with the stock and protect them.
- Putting wire collars on the stock which are unpleasant for the leopard to bite.
- Reducing use of marginal remote veld which is more likely to contain leopard.
- Changing from small-stock to large-stock which is less vulnerable to predation.

**DEVELOPING PARTNERHIPS**

Recent research indicates that the home range of a male leopard can extend up to 1000km<sup>2</sup>. Landscape level partnerships are therefore required to conserve areas sufficiently large for leopard conservation. The creation of the Greater Cederberg Biodiversity Corridor (GCBC) promotes landscape level connectivity required by leopards.

The Cape Leopard Trust received a grant through the GCBC small grants fund as part of the C.A.P.E. programme. The aim of this NGO is to facilitate the conservation of the Cape's predator diversity through the implementation of conservation strategies, research projects and tourism initiatives. In 2007, this partnership of farmers and researchers succeeded in facilitating the phasing out of gin traps in the 171 000 ha Cederberg Conservancy. Under new provincial legislations all gin traps now require a permit<sup>v</sup>.

Based in the Eastern Cape, the Landmark Foundation is also promoting leopard conservation. This NGO engages with agricultural associations to develop best practice guidelines for the predator-friendly production of livestock, it is involved in rescue programmes and is developing a biodiversity brand / label that will independently certify farmers producing wildlife-friendly veld-raised meats and animal fibre products.

**RECOVERY**

Thanks to these new approaches, conflict between farmers and leopards in the Cederberg has been significantly reduced. Indeed, many farmers are now proud of having this flagship species on their land and actively promote its conservation. As a result, leopard populations are increasing and they are being sighted in areas like the Piketberg range where they had not been seen for over 60 years.

This integrated approach is now being successfully rolled out in other parts of the country where it is often included in stewardship programmes. Farmers receive assistance with leopard management in return for their commitment to conserve biodiversity on their land. These innovative interventions have facilitated a transformation in perceptions about leopards. Instead of being targeted as problem animals, leopards are now being seen as an umbrella species for conservation in the Cederberg and beyond.

**Date:** July 2009**Key Words:**

*Apex predator, predator friendly livestock production, stewardship*

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i United Nations Convention on International Trade in Endangered Species of Wild Fauna and Flora

ii Draft lists of threatened and protected species issued in terms of section 56(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)

iii The Nature and Environmental Conservation Ordinance, 1974 (Ordinance 19 of 1974)

iv Small stock = Sheep and goats, large stock = cattle

v Amendment to the annual Provincial Notice on Hunting made on 19 November 2008.