

Livestock and Predator Issues on Namibian Farmlands

The Cheetah Conservation Fund (CCF), which was established in Namibia in 1990, has produced a report on a survey conducted on Namibian commercial farmlands from June 1991 through August 1993. The objectives were: to identify the important components of farmland ecosystems necessary to sustain a healthy cheetah population; to identify farm management practices that reduce livestock loss from predators; and to suggest conservation management plans beneficial to both the cheetah and farmers.

The following are some extracts from a summary of the report:

Background to Namibia's harsh farmland ecosystem

Namibia's harsh farming conditions are underscored by the fact that 16% of the country's total area is hyper-arid (true desert), where agriculture of any kind is excluded. Furthermore, 49% of Namibia's land is classified as arid, 32% as semi-arid and only 3% as sub-humid.

- Droughts are frequent and unpredictable in Namibia. The recent drought cycle has lasted over 15 years.
- Commercial livestock is kept on more than 7,200 fenced farms, of which 51% are cattle farms covering 49% of Namibia's total area.
- As much as 70% of the huntable game species and 90% of the cheetahs occur on commercial farms.

Europeans began farming livestock commercially in 1884, and during the past 100 years cheetah numbers have been affected by farming practices and natural disasters, such as droughts and disease.

Nature's diversity (biodiversity) on farms has been drastically altered by excessive removal of game and predators, over-grazing by livestock, extensive fencing, constant water points, and natural disasters, which all have encouraged severe bush encroachment. The bush encroachment over the last 30 years has significantly decreased the productivity of nearly one-third of Namibia's livestock farmlands.

Two natural disasters occurred simultaneously in the early 1980s, negatively affecting the cheetah population: the "drought of the century" and a rabies epidemic in kudu *Tragelaphus spekei*, a primary prey for the cheetah. Due to the denuded pastures from the drought, farmers reduced game populations by 60% to save the pastures for livestock. This in turn also reduced the natural prey for the cheetah.

The farmers' negative perception of the cheetah peaked during this time and approximately 800 cheetah were removed from the farmlands per year, even though a large percentage of livestock loss was due to natural causes and farm management practices.

Additional pressure on cheetah developed in the early 1980s with game farming, when game-proof fences were erected and exotic wild herbivores were introduced.

In 1983, due to the conflict between farmers and cheetahs, the Directorate of Nature Conservation and Tourism initiated an intensive research project to investigate the causes of conflict. This three-year project concluded the following:

1. the farmers had strong opinions and attitudes about the cheetah;
2. the cheetah was perceived by farmers as the worst problem animal, allegedly responsible for large financial losses;
3. the sighting of cheetah or spoor (tracks) led to a natural reaction ascribing livestock loss to cheetah predation;
4. a large percentage of calf loss was due to natural causes (i.e. disease, poor nutrition, stillbirths, etc.) and not cheetahs; and

5. further research was necessary.

In 1992, CITES allowed limited trade in Namibian cheetah (annual quota of 150) in an attempt to reduce indiscriminate removal of cheetah.

In 1994, the Namibian Professional Hunters Association (NAPHA) developed a special sub-committee called RASPECO (Rare Species Committee) to develop guidelines and programs which will support the sustainable utilization of rare species such as the cheetah, to the enhancement of the species. As a part of RASPECO, NAPHA members were asked to sign a compact for the management of cheetah on their farms.

Cheetah problems

It is difficult to define a "cheetah problem", because livestock loss specifically due to cheetah may be unknown and farmers' perceptions of predation may differ. Many farmers accept losing one or two calves a year, while others find any loss an economic hardship.

- Seventy-five percent of the farmers in the survey were not having cheetah problems at the time of the survey.
- Farms that reported problems with cheetah had a lower ratio of game to cattle than farms with no cheetah problems.
- In the survey area, loss of cattle to cheetah comprised 33% of all predation, while loss of smallstock to cheetah comprised 22%.
- The average of the calves lost to cheetah was 4.4 months, with 51% of the total under three months of age. Few calves older than six months of age were killed by cheetah.
- Corralled smallstock, if not sufficiently protected, can suffer high losses, as once a predator approaches, their panicked movements stimulate the predators' killing instinct.

Farmers said they experienced more problems with black-backed jackal *Canis mesomelas*, caracal *Caracal caracal*, and leopard *Panthera pardus* than with cheetah. However, cheetah were blamed for more livestock loss than leopard and were removed in higher numbers.

Additional livestock losses were due to baboons *Papio ursinus*, snakes, aardvark *Orycteropus afer* burrows, poisonous plants, droughts, disease and stock theft.

Game losses to cheetah, especially loss of exotic wildlife on game-fenced farms, caused 49 game farmers to remove 1,280 cheetah, representing 45% of the total cheetah removals for the survey area during the two-year survey period. The majority of loss to cheetah in game-fenced areas is exotic species.

Management techniques

Many methods of stock protection have been used by the farmers. The most prevalent technique used to prevent livestock loss was a calving camp. This technique was used by 43% of the farmers surveyed.

Farm camp numbers did not appear to influence predation pressure on livestock; however, farms with more camps tended to practice more intensive livestock management, thus reducing predator conflict.

Calving seasons varied between farmers, but the peak calving months were November, December, and January. Heifers, which usually calve first, suffered greater calf loss than experienced cows, in particular when calving in the winter months.

Brahman, Brahman crosses and Afrikaner cattle are more protective of their calves and are better adapted to the Namibian environment. However, due to the differences in farm manage-

ment practices and inaccurate reporting of livestock loss, it was unclear whether farmers raising particular breeds had lower rates of predator loss.

Donkeys were used successfully as guard animals accompanying a calving herd to deter predators. Likewise, the use of guard dogs, baboons and herders for smallstock was found to reduce loss.

Electric fencing was found to be worth the investment in the long-term to protect especially valuable game.

Cheetah removals

During the past 20 years perhaps more than 10,000 cheetah may have been removed from farms.

Sixty-five percent (157) of the survey participants reported removing a total of 2,845 cheetah (1980-93) from the survey area. Yet, when removals were compared to specific losses, there was an indication that removal of cheetah was not in response to specific loss of livestock.

There was a large discrepancy between the reports to CCF in its farm survey and both the Directorate of Veterinary Services and CITES figures on the number of cheetah removed from the farmlands. This indicates a vast variation in the number of cheetah removals reported, and questions the accuracy of official reports.

CCFs survey found that a few farmers removed a large number of the cheetah. An interesting point was that those farmers who removed large numbers of cheetah did not observe cheetah more frequently on their farms, again representing an attitude versus an actual problem.

More male than female cheetah were removed from the farmlands.

Farmers with cheetah "playtrees" tended to remove more cheetah than farmers without playtrees, even though they had no higher incidents of problems with cheetah, possibly due to the fact that cheetah are easily caught at playtrees.

When cheetah are removed from an area, the territory is opened up, which encourages new cheetah to move into the area. Cheetah activity may increase on a farm until the territory is re-established.

Removal of cheetah is a short-term solution. Without re-evaluation and restructuring of management techniques, the predator problem can reoccur.

Source

Marker-Kraus, L., Kraus, D., Barnett, D., and Hurlbut, S. 1996. Cheetah Survival on Namibian Farmlands. Cheetah Conservation Fund, PO Box 247, Windhoek, Namibia.