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Abstract: The report deals with the author's research activities on the cheetah and wild dog during 1988, cooperative projects between the National Parks Board and the Endangered Wildlife Trust. Much of this work forms part of a wider project on the ecological relationships between the large carnivores in the Lower Sabie - Crocodile Bridge region of the Kruger National Park. Three large males of the region were radio-collared and followed to study their movements and behaviour. Two young adult male cheetahs came into the area, but they soon moved down onto the Crocodile River, where the bush is rather thick and the hunting is difficult. Their condition deteriorated and developed severe sarcoptic mange. These observations are important because they add strength to the idea that much of Kruger is not ideal cheetah habitat, and that the area can only support a rather low density of these carnivores. Two females with her cubs were also followed in the region and it is hoped of the monitoring of their dispersal.

Cheetah and Wild Dog Research in the Kruger National Park in 1988 - A Progress Report

MGL Mills

This report deals with my research activities on Cheetah and Wild Dog during 1988, cooperative projects between the National Parks Board and the Endangered Wildlife Trust. Much of this work forms part of a wider project on the ecological relationships between the large carnivores in the Lower Sabie — Crocodile Bridge region of the Kruger National Park. In addition there is the Wild Dog satellite tracking project. The report does not include the Wild Dog photographic project being undertaken by Dr Anthony Maddock.

Cheetah

The large males, known as The Three Musketeers, are the dominant Cheetah inhabitants of the plains between Lower Sabie and Crocodile Bridge. One of them has worn a radio collar for nearly two years now, which has enabled us to gain a wealth of information on their movement patterns and feeding habits. The three, almost inseparable comrades, range over an

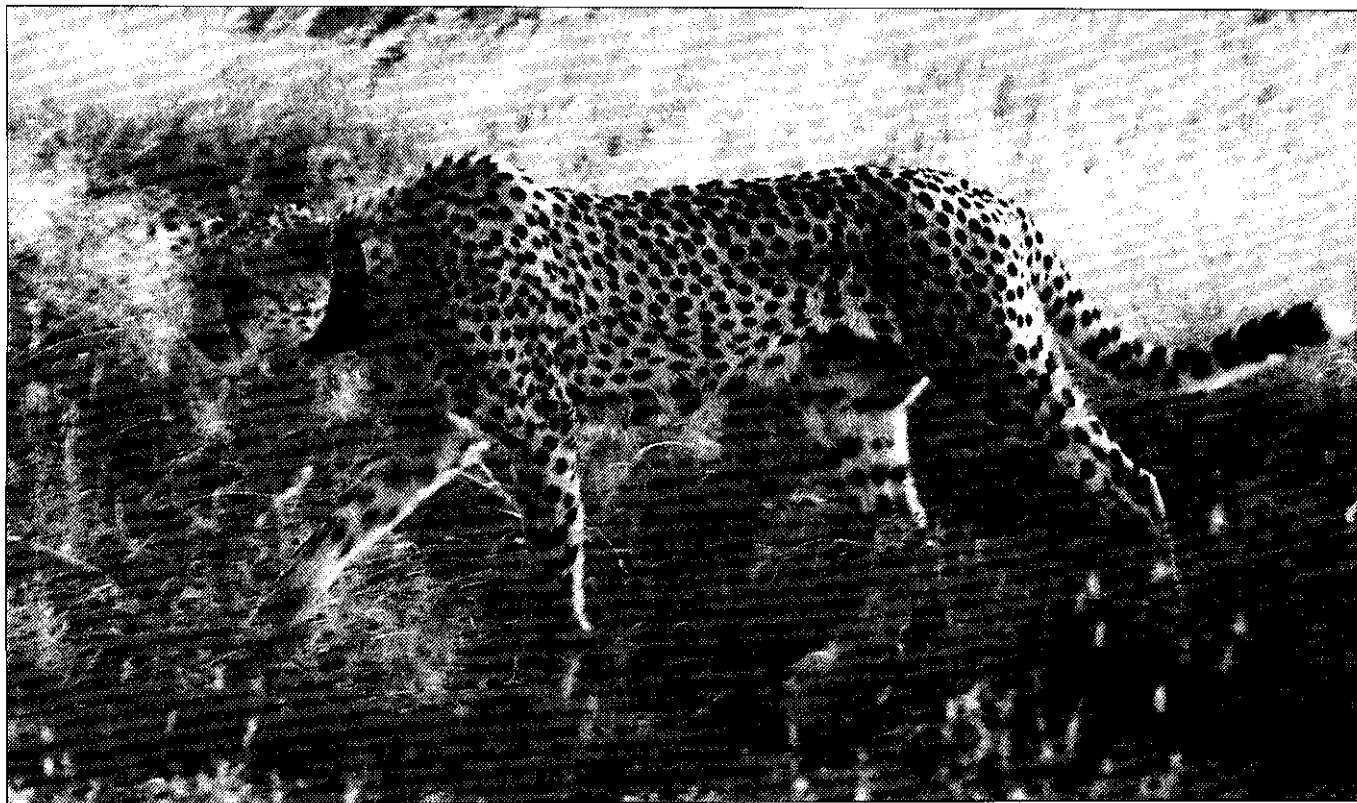
area of about 175sq km. They prey mainly on adult male Impala, but also take a variety of other prey including, Duiker, Kudu and Waterbuck calves, and on one occasion, and adult Waterbuck cow. This year during the Zebra foaling season they also took a number of newly born foals. One large Impala, or equivalent sized prey animal per week, appears to be enough to satisfy their nutritional requirements.

During June two young adult male Cheetahs came into the area. Fortunately we were able to get a radio collar onto one of them and so to trace their movements. They soon moved down onto the Crocodile River where, although there are plenty of Impala, the bush is rather thick, making hunting difficult for these speed merchants. Although I have no direct evidence, I think they were forced into this marginal habitat by the presence of The Three Musketeers. Their condition deteriorated and within a few weeks they developed severe sarcoptic mange. They then moved to an area

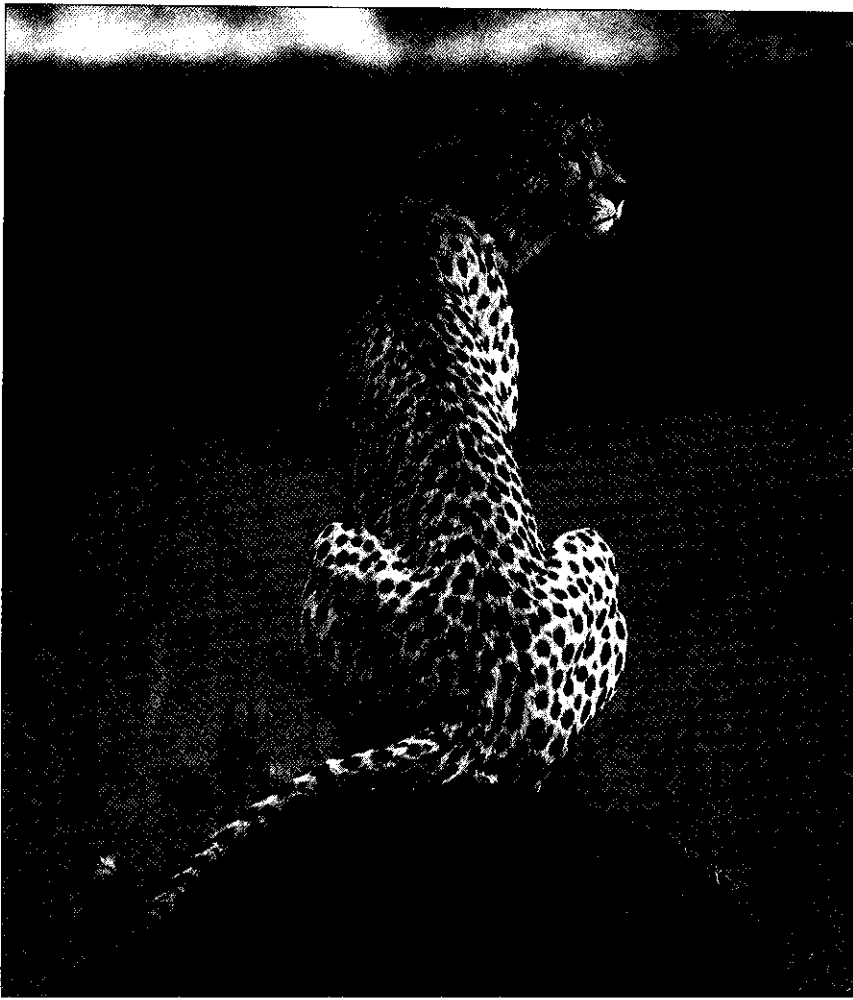
some 20km to the west, along the Mbyamiti river, still in rather poor Cheetah habitat, where they were able to eke out a rather tenuous existence. In December they moved back to Crocodile Bridge for a few weeks before again moving west. They were recently seen near Afsaal, 40 km from Crocodile Bridge, looking thin and still with bad mange.

These observations are important because they add strength to the idea that much of Kruger is not ideal Cheetah habitat, and that the area can only support a rather low density of these carnivores. They also suggest that a disease such as mange is often the result of an animal being subjected to ecological stress, and that from a conservation viewpoint there is no point treating these animals.

To test this idea further we recently did treat a male Cheetah for mange in the Skukuza area. On release we fitted a radio collar to him in order to see if the cure was long-lasting. Within six weeks he had again developed mange and we have recently re-



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treated him. My guess is that the mange will return, unless he is able to establish himself in better Cheetah habitat, preferably joining up with at least one other male as well.

Futher observations on these males will contribute significantly to our understanding of how Cheetah populations are regulated.

Two females, each with two large cubs, were known to regularly inhabit the range of The Three Musketeers in 1988. One of two others probably also had at least part of their range in this area. A radio collar was fitted to one of the females in late 1987, but she proved to be a most frustrating study animal, never settling down to our presence, or allowing us to follow her in a vehicle. Towards the end of 1988 we managed to catch the second female who has turned out to be a beaut! She and her cubs have completely accepted the presence of a vehicle, and we are starting to get valuable information from her on female Cheetah feeding habits and movement patterns in Kruger. When her cubs grow up we hope to be able to monitor their dispersal.

Wild Dogs

There is only one pack of Wild Dogs in the Lower Sabie — Crocodile Bridge study area. One of the males from the pack, which consisted of one adult female, three adult males and six subadults, was collared in January.

As expected, these dogs ranged widely between the Crocodile and Sabie rivers. What was unexpected was their choice of habitat; they stuck to the riverine bush along the Cocodile river and the broken ground in the Lebombo Mountains, never being tracked on the more open plains. There are certainly lots of Impala, their main prey, in these habitats, but the thick bush and uneven ground do not seem to provide ideal conditions for cursorial hunters.

In June the dogs crossed the Park boundary into Mozambique, where we believe the female had pups. They stayed in the mountains, sometimes being tracked in the Park and sometimes in Mozambique, but because of the rugged terrain we rarely caught a glimpse of them. On one occasion when I did so I noticed that one of the dogs had a snare around his neck,

but before I could get a dart loaded, the pack had again moved into an inaccessible area.

Towards the end of September we obtained a series of radio locations from the radio-collared dog from the same place in Mozambique, and we knew that the collar had either come off, or the dog was dead. With the co-operation of the Mozambican authorities I was able to go into Mozambique to locate the collar. I found it in a kloof, partially hidden under some vegetation, with only the skull and some skin from the dog close by. The collar had been cut off the animal. The fact that there were no other remains of the dog suggests that it had been eaten.

With no radio collared dog in the pack, we lost contact with the group. However, reports of Wild Dogs have once again been received from this area and as soon as new radio collars become available, I hope to be able to renew contact with them. I am particularly interested to see if they go back into Mozambique during the breeding season.

The experience from this Wild Dog pack further illustrates how important it has become for us to learn more about the movements of these endangered carnivores in Kruger. These dogs were the only ones to inhabit the area between Lower Sabie and Crocodile Bridge, yet they moved out of the Park area. It is most unlikely that this was due to a shortage of food, nor could it have been due to social pressure from another pack.

It is also important to find out how many other packs roam outside the Park and what effect this has on the population. It is here that I hope the satellite tracking project will be of great value. Although little progress was made in 1988, we did try out a new collar design on a dog in captivity, which proved to be a vast improvement on the original one. Hopefully we will be able to put two satellite collars on Wild Dogs from two packs later this year, and start to learn more about the movements of these fascinating yet endangered creatures.



About the Author

Dr Gus Mills is Senior Research Officer with the National Parks Board, and his main area of interest is the large carnivores of the Kruger National Park.

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