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**CHEETAH TRANSLOCATION PROJECT
IN LOWER ZAMBEZI NATIONAL PARK, ZAMBIA**

submitted to Reuters News

BY

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December 16, 1996

INTRODUCTION

The Cheetah 'Acinonyx jubatus' is the most specialised of all 37 species of cats, well known as the fastest terrestrial mammal in the world. It is listed as endangered under CITES Appendix I, categorised as vulnerable by IUCN and as critical by Mace/Lande criteria in Felid Action Plan, (IUCN 1992). Historically, its ranges has declined dramatically with wild populations being currently estimated between 12000 and 15000 (Kraus, pers, 1996).

At present most of the larger carnivores, the Cheetah in particular has a fragmented remnant range which is a direct result of human activity, usually overhunting, conversion of land to agriculture and livestock farming, and/ or gross habitat modification. Its previous range was of course not static but subject to variations caused by climatic and other factors, inclusive of human primitive influences have greatly altered them (Ansell 1978). Complicating the situation is the Cheetah's lack of genetic variation making it susceptible to both ecological and environmental changes (Laurie & Daniel Kraus, 1993).

Our main objectives of the Cheetah translocation project are:

- a) To evaluate the possibility of establishing Cheetah population in the Lower Zambezi National Park.
- b) To study Cheetah ecology through monitoring of translocated animals and find out the important factors to establish conservation strategy for Cheetahs in Zambia.
- c) To study basic techniques and concept of translocation which will be useful for future conservation strategy for other species.

The project commenced on August 23rd, 1994 and with its impressive positive results of the pilot phase, we will now be commencing the second phase by mid 1997.

SPECIES DISTRIBUTION

In Zambia, Cheetahs 'Acinonyx jubatus' occur in relatively low numbers in Kafue National Park, South Luangwa National Park and Sioma Ngwezi National Park. In Lower Zambezi National Park one or two Cheetahs have been sighted at Jeki plain by tour operators during the last four years. It is not clear whether those animals currently in the area are residents or migrants from e.g the Luangwa Valley. Although there is no departmental record of Cheetahs in the area, it must be remembered that absence of records need not necessarily indicate absence of the animal but may be difficulties in systematic data recording and storage.

Although we have such scanty numbers in very few places (shown in Map 1), the species distribution in the last three decades in Zambia was encouraging, as shown in Map 2. For example six Cheetahs were recorded in 1965 in Chakwenga area in Lower Zambezi National Park by Wildlife Conservation Society of Zambia (WCSZ). In Kafue National Park particularly, it was well distributed and quite often seen. In Luangwa Valley it is now known to be somewhat scarcer than previously thought. The species is uncommon at least in many places and this is probably not due to human persecution (Ansell 1978).

STUDY AREA:

The area of the Lower Zambezi National Park is approximately 4092 km² (SHOWN ON MAP 3). It is located in the south-eastern part of Zambia. It lies between latitudes 15° 7' south and longitude 29° 10' and 30° 10' east. The park itself is composed of three physiographic regions: the plateau, the escarpment and the valley (Outline Management Plan Lower Zambezi National Park, 1992).

METHODOLOGY:

The translocated animals were Wild Cheetahs (males) which were trapped by farmers in Namibia. In Lower Zambezi National Park the three animals were placed in an enclosure of measurements 65m x 65m x 3m for six weeks during which they were provided with shade, water and two fresh Impalas per week. The purpose for this was for disorientation and acclimatization.

During the six weeks the animals were enclosed, a preliminary study on telemetry was done to:-

- i) check on how far the radio signals from the Cheetah collars could reach;
- ii) get used to the handling of the Yaesu receiver and the antenna;
- iii) try and indentify the Cheetahs individually.

The outcome of the preliminary study with regards to how far the signal could reach was that depending on vegetation or terrain between the collar and receiver, the intensity of the signal changed.

Signals from Cheetah radio collars were caught using the Yagi Antenna and the Yaesu receiver whereas the location and distance from the animals were checked using the Global Positioning System (GPS).

On individual identification special marks were noted like the animal's tail marks, black "tear marks" and their body sizes. Observations made regarding animal identification, preliminary study on telemetry, animals pattern of movement after their release and other vital information were all systematically recorded in a notebook.

RESULTS:

The animals were released on October 4, 1994. They moved alot mostly at night and on average covering as much as 8-9 kms per night. Within a month's time of their release the Cheetahs had covered about 70 kms in the South-west direction from Jeki Boma (shown on Map 4). Their unidirectional movements could have been due to instincts as their original homeland (Namibia) is South-west of Lower Zambezi National Park.

About a month of their release, Cheetah 1 and Cheetah 3 were found snared in Baya Baya area which is about 70 kms South-west of Jeki Boma.

It is encouraging to note that the other animal Cheetah 2 is still alive and has moved back into the Park despite the other two Cheetahs being snared. It is able to hunt on its own as per our observations on May 10, 1995 and also as observed by two Wildlife Police Officers who saw the Cheetah on an Impala carcass. From our aerial and ground telemetry survey, the animal has already established a home range of approximately 600 km².

DISCUSSION:

From the observations made during our monitoring of Cheetahs, further research need to be undertaken to look at;

- ▶ why we were getting the general pattern of unidirectional movement from the Cheetahs,
- ▶ establishing the species present status in the area,
- ▶ social interactions with other predator species and intra species interactions, and
- ▶ ways of how to conserve and manage endangered species and their habitats.

The points listed above need more time for best results to be realised and of course coupled with funds which at the moment is the biggest draw back.

ACKNOWLEDGEMENTS:

The Cheetah Translocation Project in the Lower Zambezi National Park has been made possible through the initiatives and assistance from the following: The Director (National Parks and Wildlife Service), G and G Safaris, Cheetah Conservation Fund of Namibia, JICA, the Chief Wildlife Research Officer Mr. H.K. Mwima and the National Parks and Wildlife Service staff involved. Also many thanks to the Chieftainess Chiawa and her people and the tour operators for their assistance and cooperation.