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Abstract: 95% of cheetahs in Namibia are found on private farmland. No information was available of any aspect of cheetah ecology on private farmland, all previous studies were done in reserves or other protected areas. Field work was started in February 1984 on 20 farms in one of the highest cheetah density and problem areas. During two years, 17 cheetahs were caught and marked with radio-collars. Field work was completed in August 1987. Homorange size was 800 km² for males and 1500 km for females. The density was estimated to one cheetah per 50 km². Diet was found to be mainly young calves of kudu, hartebeest and oryx. It was found that cheetah only took calves from birth to about 8 months, and on average only 3-4 calves per farm were taken by cheetahs. Males lived either solitarily or in groups of 2-5 males. Farmers in central and northern districts of the country view the cheetah as the major cause of livestock losses. The number of cheetahs being killed is increasing. The only possible way to ensure the future breeding population of cheetahs on farmland would be to raise the economic value of the animal for the farmer.

DEPARTEMENT VAN LANDBOU EN NATUURBEWARING
DEPARTMENT OF AGRICULTURE AND NATURE CONSERVATION

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DIREKTORAAT NATUURBEWARING
EN ONTSPANNINGSOORDE

Navrae / Enquiries: D. Morsbach
Telefoon / Telephone: (061) 37552/3
Teleks / Telex: 50-908-3180



DIRECTORATE OF NATURE CONSERVATION
AND RECREATION RESORTS

Verw. nr. / Ref. no.
U verw. nr. / Your ref. no.
6 January 1987

Mr. P. Jackson
Chairman: Cat Specialist Group
1171 Bougy-Villars
SWITZERLAND

Dear Mr. Jackson,

Thank you very much for your letter of 7 November 1987 and the copies of CAT NEWS which was much appreciated.

I was very surprised to see that "cat problems" are so identical throughout the world - and now do not feel so isolated anymore !!. I was very interested to read about Zimbabwe's plans to allow hunting of cheetah and the current cheetah survey of Viv Wilson. I plan to write to him soon, seeking some advice and communication on our two very similar situations.

Yes, I would very much appreciate it if you could put a summary of our cheetah situation here in S.W.A./Namibia in the CAT NEWS. I'm including a recent preliminary report on our cheetah situation from which you are welcome to use any information for the Cat News. I would also really appreciate any comment, criticism or advice on our situation and suggested management plans.

Attached please find a cheque for US dollars 20.00 for subscription and donation to Cat News.

With Best Wishes for 1987.

Yours sincerely,

D. Morsbach

S.R.O. Die korrespondensie moet gerig word aan Die Sekretaris, Dept. van Landbou en Natuurbewaring,
All correspondence to be addressed to The Secretary, Dept. of Agriculture and Nature Conservation,
Privaatsak / Private Bag 13306 Windhoek 9000 Suidwes-Afrika / South West Africa

THE CHEETAH IN S.W.A./NAMIBIA

(A short summary and Preliminary report)

INTRODUCTION:

S.W.A./NAMIBIA has one of the largest and healthiest "free roaming" cheetah populations left in the world. (Meyers, 1974; Joubert and Mostert, 1975; Gaerdes, 1974) No accurate population estimate has been made in the past and estimates range from 1500 (Meyers, 1974) to 6000 (Joubert and Mostert, 1975 and Gaerdes, 1974), with indications that this population was increasing (Gaerdes, 1974; Joubert and Mostert, 1975; McVittie, 1978).

Various reasons are given for the cause of the healthy and thriving population: Increased availability of food and water, Healthy game populations; decrease of competitive predators, Hunting behaviour of cheetah (not returning to carcass and thus difficult to poison); Bush encroachment (better cover for stalking and concealment from the farmer/hunter); An increase in small camps and fences on farms which increases hunting success considerably. (Gaerdes, 1974; Joubert and Mostert, 1975; McVittie, 1978).

Although the cheetah is classified as a "protected animal" in the local Nature Conservation Ordinance (in accordance with the CITES Appendix 1 classification), farmers may shoot cheetah to: "Prevent a human from being injured or to protect the life of any livestock whilst the life of such livestock is actually being threatened. Any person who kills a cheetah must report it within 10 days and will receive a permit for the possession of that skin" (Nature Conservation Ordinance of S.W.A./NAMIBIA 1975, No. 4 of 1975 Article 27(S)(a)+(b)).

The farmers view the cheetah as the major cause of stocklosses where-ever ~~the~~ cheetah occur on private farmland, and kill cheetah in ever increasing numbers. (Gaerdes, 1974, Joubert and Mostert, 1975; McVittie, 1978).

DISTRIBUTION:

More than 95% of the cheetah population is found on private farmland - in mainly the Central and Northern districts (Between 19 and 23 S and 15 and 19 E), an area of approximately 100 000km². Cheetah are also found in the southern districts of the country (below 23 S), but only locally and sparsely dispersed. See Map 1 for the distribution and Table 2 for percentage occurrence, both from a questionnaire survey in 1982. (Joubert, Morsbach and Wallis, 1982)

NUMBERS:

It is virtually impossible to give an accurate count of such an elusive predator, especially on farmland where it is extensively hunted.

Earlier estimates based on personal observation and experience (Meyers, 1974) and questionnaire results (Joubert and Mostert, 1975) were both rough guesses at a time when no information was available on the home range, density and other factors of cheetah ecology on farmland. The huge variation in the results of these estimates, both carried out in the same year, clearly proves that it is impossible to make any meaningful estimates of a population if the basic data on that population is not known.

THE CHEETAH AS A PROBLEM ANIMAL:

Farmers in the central and northern districts of the country view the cheetah as the major cause of livestock losses and is said to be responsible for an annual loss of more than two million rand to the cattle industry alone. With the increasing economic value of game in the country, farmers are also, for the first time, becoming very aware of the impact of cheetah on this new source of potential income.

Farmers therefore view the cheetah ^{as having} ~~with~~ no ecological benefit, and thus as an animal that stands in direct competition to their profits with the result that cheetah are killed in ever-increasing numbers.

Another very important factor for this increased killing and antagonism against the cheetah was found to be the attitude of farmers towards local, but especially international conservation organisations.

The cheetah is declared a "protected animal" under the local law, and internationally "a highly endangered species, most worthy of protection". This is a very popular topic for the media and is regularly published, in highly emotional tones.

~~tones.~~

The international conservation organizations placed a ban on all trade with cheetah - live animals and other products to ensure the future survival of this predator.

Although more than 24% of this country is either proclaimed protected areas or falls under the direct jurisdiction of the government, there is only one suitable area for cheetah - the Etosha National Park. However, this park also contains large numbers of both lion and hyaena and thus only a small cheetah population. No other suitable area/habitat for the translocation of cheetah exists in S.W.A./Namibia.

Thus when a farmer catches a cheetah that has been causing livestock losses on his farm, he cannot sell it to the game dealers, as there is no market for live animals, and neither can he give it to the local department, as they do not want it. The farmer is then also told that the cheetah is a protected and highly endangered animal and that he therefore needs a permit to kill

the animal.

The farmer then simply kills the cheetah(s) and either buries it or leaves it out in the veld. This was found to be increasing on almost all farms throughout the country, for at least the past three years.

It is thus clear that the regulations originally drawn up to protect the cheetah has, in this country, very definitely the exact opposite effect.

CHEETAH RESEARCH PROJECT:

No information was available on any aspect of the ecology of cheetah on private farmland, all the previous studies were done in reserves or other protected areas.

This directorate then initiated a fulltime intensive research project on cheetah on private farmland with the following "Key Questions" :

1. What is the population status of cheetah in S.W.A./NAMIBIA ?
2. What is the extent of the cheetah problem on farmland ?
3. What is the cost to the farmer of cheetah predation ?
4. What control and conservation methods should be used to ensure the future survival of cheetah on private farmland ?

The fieldwork was started in February 1984 on 20 farms (in total 100 000 hectares) in one of the highest cheetah density and thus "problem areas." Due to the extremely shy nature of cheetah, especially on farmland where it is continually hunted, use was made of radiotelemetry equipment. During the two years of fieldstudy 17 cheetah were caught and marked with radiocollars. These animals were followed on a 24- to 48 hour basis and information gained on movement, homeranges, diet and stock losses caused.

The fieldwork was completed in August 1986 and is currently in the final stage of data analysis and writing up.

This final stage is still incomplete, therefore only a short summary of the preliminary results can be given at present.:

1. Homerange:

This varied in size from 800km² for the Males to 1500km² for the females.

It was however clear that these homeranges shifted from year to year and only a long-term study would be able to give the true picture.

2. Density:

The study area is known as one of the highest cheetah density areas in the country - and was found to contain One cheetah per 50km².

3. Diet:

It is clear that this also varies from area to area, depending on the type of game in that area, but was found to be mainly young calves of Kudu, Kartsbees and Oryx. Adult as well as young, Steenbuck, Duiker and Warthog were taken, and also hares,

rodents and some of the groundbirds.

4. Stocklosses:

It was found that cheetah only took new-born calves to calves of about 8 months of age and that on average only about three to four calves per farm were taken per year by cheetah. (There were however also a few farms that had no calf losses while others lost as many as 10 per year.)

5. Groupsizes:

Males were found to be either solitary or in family male groups of between 2 and 5.

Females were either solitary or with a litter.

6. Littersize:

This varied from 5 to 9 with an average survival rate of 4 cubs (Considerably higher than other studies in East Africa.)

A survey of all cheetah on farmland is currently being carried out. The results from this survey, with the now known basic facts of cheetah ecology on farmland, will be used to give the most reliable estimate possible of numbers on farmland.

Indications at this early stage are that it is considerably lower than the current official estimate of 6000, and rather between 2000 and 3000, with signs that this population is decreasing with the increasing pressure from intensive ~~prosecution~~ persecution.

FUTURE OF CHEETAH ON FARMLAND IN S.W.A./NAMIBIA:

It is at this stage already very clear that if some action is not taken very soon, the steady decline in the population will continue to the detrimental effect of this population.

It is also very clear from the facts raised under point 4, that the law prohibiting the killing of cheetah will not have any significant effect. Especially if also borne in mind that there are currently only 10 officers responsible for more than 10 000km² and the size of farms vary from 6000 to 12000 hectares.

It must always be remembered that it is the FARMER and no other organization that has the final decision whether to conserve or eradicate.

With the ever increasing demand for more land for agricultural use in a developing country such as S.W.A./NAMIBIA, it is highly unlikely that any additional and suitable land would be put aside for a "cheetah reserve". It has furthermore repeatedly been proven in southern-Africa that a cheetah reserve as such is not feasible and practically possible, as cheetah need vast areas and especially a continuous supply of game animals if the area is to be enclosed. (Anderson, 1981; Pettifer, 1979)

The future survival of a breeding population of cheetah on farmland in this country is thus important to ensure the future of this predator in southern-Africa.

With the growing demand for self-sufficiency and independence for this country, and the spiralling running costs of farming, farmers now strive for maximum yield/profit and cannot tolerate any stocklosses.


The only possible way to ensure a future breeding population of cheetah on farmland, under these conditions, would be to raise the economic value of the animal for the farmer. If a farmer could receive a small income from cheetah caught on his farm, this would, in part, compensate for stock losses caused, and would possibly change the attitude of the farmer towards the cheetah where he would tolerate and allow a small breeding group of cheetah on his farm.

It is suggested that the economic value of cheetah be raised through export in live animals and trophy hunting. - NOT SKIN TRADING !!. - There is a demand for both these markets, and both can be strictly controlled with a quota system. Another possibility currently being investigated is the forming of some type of "cheetah protected areas". Where farmers in certain areas would agree to shoot only those stock-raiding animals, and be compensated in some way for the stocklosses - for example, in some form of subsidy for electric fences where the calves would be safe from cheetah.

It must once again be stressed that if the current situation on farmland is allowed to continue for much longer, the cheetah will lose its last stronghold in Africa - and that depends on the action taken - NOT by the farmer - but international conservation organizations!

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D. Morsbach

Senior Problem Animal Research Officer

1st. October 1986

WINDHOEK.

Table 3:

The occurrence and percentage occurrence of cheetah on farmland in S.West as taken from "The 1982 distribution patterns and status of some mammals on farms in S.W.A. by E.Joubert, D.Morsbach and V.Wallis, Departemental Report NI8/2/2/1." (Joubert is busy putting it in a article form for the Madoqua)

2667 farms out of total of 5388 were covered by this survey (52.1%)

<u>District</u>	<u>Total no. of farms covered by Question.</u>	<u>Occurrence</u>	<u>% Occurrence</u>
Tsumeb	65	32	49.2
Grootfontein	333	205	61.6
Outjo	224	164	73.2
Otjiwarongo	218	180	82.2
Omaruru	89	77	86.5
Karibib	78	48	61.5
Okahandja	179	135	76.3
Windhoek	282	177	75.7
Gobabis	396	189	47.7
Mariental	319	17	5.3
Maltahohe	84	45	53.6
Bethanie	82	23	28.0
Keetmanshoop	186	7	3.8
Karasburg	132	22	16.7

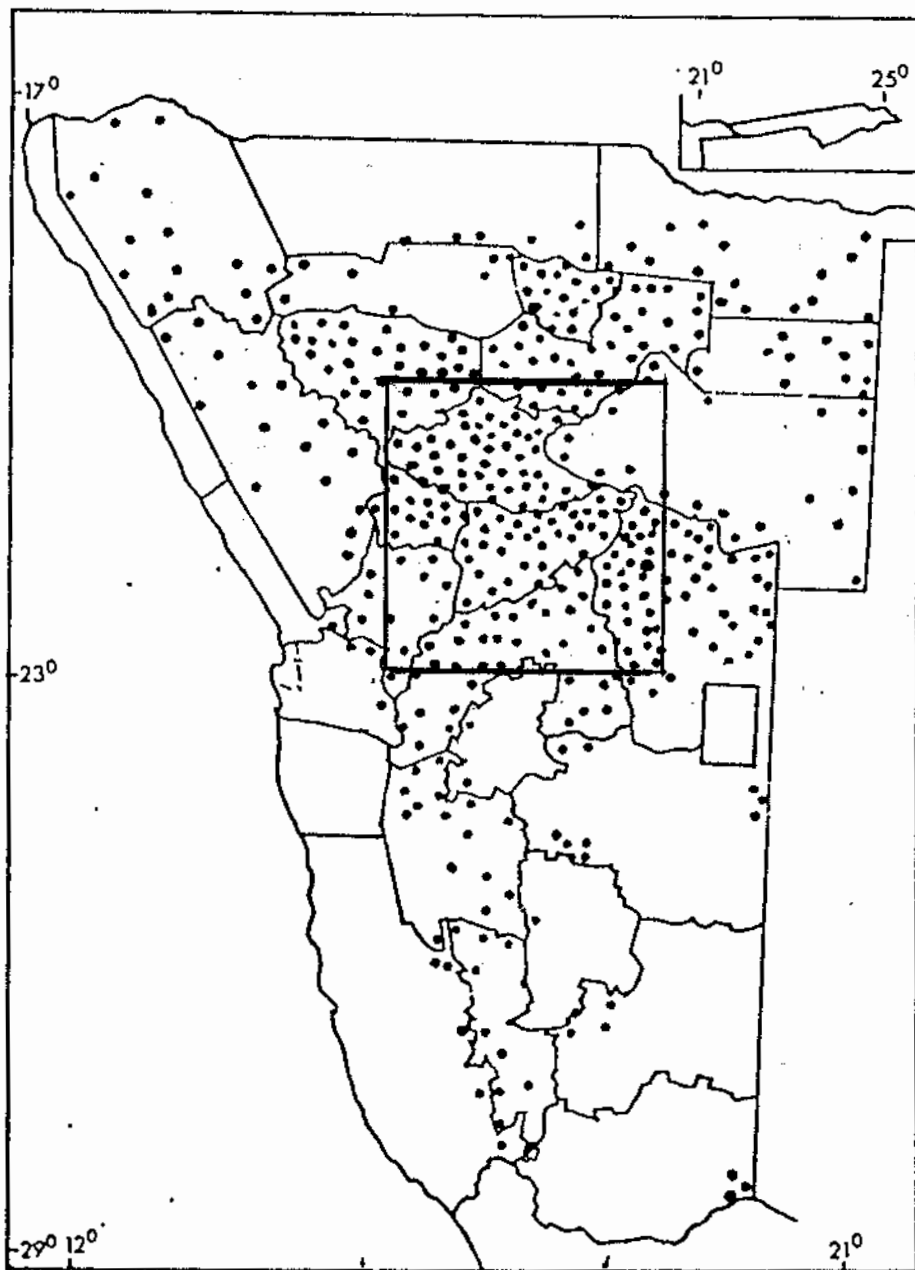


Table I: Departemental permit rekords for Cheetah 1980 - 1986 (-21/8/86)

Type of Permit	'80	'81	'82	'83	'84	'85	'86
<u>Live Export :</u>							
TO Overseas	84	41	30	98	37	85	36
TO R.S.A.	55	17	10	26	24	28	22
<u>Possesion of Skin</u>	623	669	850	721	646	537	203
<u>Trophy Hunting</u>	0	0	0	12	8	21	10
TOTAL	762	727	890	857	715	650	271

TABLE 2 : Trophy Hunting

TYPE	'83	'84	'85	'86
Apply	66	49	115	109
Shot	12	8	21	10
Exported	10	6	11	?