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Abstract: The Division of Nature Conservation and Tourism successfully carried out a questionnaire survey of the game occurring on private land in Namibia, in 1972. It was then decided that this survey should be repeated at 10 year intervals to monitor changes in the game populations. The present paper presents the results of the 1982 questionnaire survey. Concerning the cheetah the following data are available: the occurrence and percentage occurrence on farm, and damage caused and numbers killed by farmers during 1981. The cheetah occurred on 1344 of 2621 farms, that is the 51.3% of occurrence. Damage was reported on 1031 farms and 737 were killed in the period of the study. Additional tables compare the occurrence and damage caused by 21 mammal species on farms and analyze the attitude expressed by farmers to the nature conservation legislation in Namibia.

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THE 1982 DISTRIBUTION PATTERNS AND STATUS OF SOME MAMMALS ON FARMS IN SOUTH WEST AFRICA

by

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Contents

1. Introduction

The Division of Nature Conservation and Tourism successfully carried out a questionnaire survey of the game occurring on private land in 1972. It was then decided that this survey should be repeated at 10 year intervals to monitor changes in the game populations. The present paper represents the information synthesised from the 1982 questionnaire survey.

In reviewing the past decade, several aspects, which had a definite influence on the game populations on private land, came to mind. Although these factors are discussed separately they are strongly interrelated. Their combined effect is much larger than what it would have been if this was not the case.

The first and probably most important aspect, was as a result of the stock reduction scheme, launched by the Department of Agricultural Technical services, who were concerned with the deterioration of the soils in SWA, in 1971.

Basically this was an effort by the authorities to reduce the number of live stock on farms for a period of five years allowing pastures the necessary time to recuperate. Only the farms to the south of the 23 S latitude and to the west of the 16 E longitude were involved. In order to get the farmers to co-operate a financial incentive was built into the scheme. Farmers were actively encouraged to run less live stock than the officially determined carrying capacity on their land. They were financially compensated for any loss of income. The success of

this venture is illustrated by the fact that approximately 60% of the landowners in the designated area participated, some running up to 100% less live stock on their land.

A second, and equally important aspect was that the above mentioned exercise coincided to some extent with the high rainfall the territory received during the early and middle 1970's. During this period landowners, as they became more aware of its economical assets, began to change their attitude towards game. These combined factors resulted in a spectacular increase in the game numbers. Kudu (Tragelaphus strepsiceros) was particularly favoured by this situation. Joubert and Mostert (Op cit) reported that kudu benefited from the "improvement" of their habitat as a result of the reduction of certain predator species, the installation of watering points for live stock and the bush encroachment experienced on most farms. Added to this the reduced live stock numbers allowed more "lebensraum" for the game to increase. According to all indications kudu more than doubled their numbers as shown by an extension of their range and a dramatic increase in the number of road accidents involving these animals. The latter caused a public outcry which forced the Directorate of Nature Conservation to launch a research project. In retrospect the outbreak of rabies, which primarily effected the kudu population, was to be expected. The dessimation caused by rabies will be discussed in greater detail elsewhere. In the discussion of the various groups the taxonomic sequence as used by Meester

et al (1964) is followed.

2. Methodology

Basically the same methodology used during 1972 was applied. Questionnaires were mailed to all farmers in the territory. Their addresses were obtained from the Department of Internal Revenue. Reminders were sent off after approximately three months. An attempt was also made via the media, farmers unions of the National Game Committee to create a positive attitude amongst farmers for the completion of these questionnaires. As the questionnaires were sent out during the height of the worst drought in recorded history this was found to be necessary.

Each returned questionnaire was ticked off against a checklist and the farm(s) whose information it contained, was marked on a 1 : 1 000 000 scale map of SWA. The information on the questionnaires was processed and transferred to summerisation sheets from which the final analyses were made. The results regarding the occurrence of species, were analysed according to the methods used in the 1972 survey. The "percentage occurrence" (Nigalke and Bateman, 1962) per species per district was determined as well as the totals estimated per species per district. For each magisterial district maps showing the various farms were used to plot the distribution of the various species. One map per species per magisterial district was used. From these maps a final map showing distribution was compiled for each species.

The validity of information obtained from questionnaires and various other methods is debated in the publication by Joubert and Mostert (Op cit). The authors maintain that if the limitations of the various methods are kept in mind, worthwhile conclusions may still be obtained. This is especially true for the distribution of the various species and to some extent their status.

3. Results of the questionnaire survey

During the second half of 1982, as in the 1972 survey, some 5388 questionnaires were mailed. Many farmers owning or farming more than one farm completed only one questionnaire A comparison of the reaction of the farmers to the questionnaires is given in table 1. Only 2667 farms were covered by the 1982 returns compared to the 3284 in 1972. This represents a 52.1% return to the 61.0% return in 1972. This however, is still higher than the 25.9% reported in 1962 for the Cape Province as reported by Bigalke and Bateman (Op cit). The first explanation that jumps to mind to explain this lower return is the drought, which was at its height when the questionnaires were mailed off. A large number of farmers had to move elsewhere with their live stock or seek employment. Despite this Okahandja,Outjo and Otjiwarongo returned a larger percentage than in 1972. The number returned from Omaruru was almost the same as that returned in 1972. The almost 84% and 83% returns from the Otjiwarongo and Okahandja districts can only be described as remarkable. Seven districts showed a percentage

return higher than 50% against the 14 districts in 1973. As with the 1972 survey, the central and northern districts, the seat of game farming activities, showed a higher percentage of returns than the southern and western districts. The central and northern districts had a return of 68.6% (60.7% in 1972) against the 39.4% of the southern and western districts (52.0% in 1972). It would seem, therefore, that the over all drop in returns may be attributed to the poor reaction in the southern and western districts. These districts were also hardest hit by the 1979-1982 drought. With the implementation of the Odendaal plan in the late 1960's a large number of farms were bought to add to communial lands. Most of these were in the western districts (Damaraland) and southern districts (Namaland). On many of these farms the original land owners were still renting the land for farming practices during the 1972 survey. Most of them returned questionnaires. They have since left the farms. Other traditional white farms were subsequently bought by either second tier government bodies (Hereros, Damaras, Tswanas) or by black farmers. None of these returned questionnaires.

4. Distribution patterns and status

4.1 The larger game animals

4.1.1 Burchell's zebra Equus Burchelli antiquorum (Hamilton - Smith) During the 1972 survey Burchell's zebra did not occur in the Gobabis and Karasburg districts. In this survey, however, they also appear to be absent from the Bethanie and Okahandja districts. The average percentage occurrence of these animals on

4.3.9 Water buffalo Pubalus arnee

Eighteen water buffalo have been introduced into the Otjiwarongo district. The reason for their introduction, as with most of the other exotics is probably due to their trophy value.

4.4 The predators

During the 1982 survey, unlike that of 1972, landowners were not asked to give an estimate of the numbers of the various predator species on their land. It was thought unreasonable to expect the farmers to know how many of these, secretive and mainly nocturnal, animals occur on their land. With this in mind it was reasoned that any such figure would not be a valid indication of the status of a specific species. Instead, it was decided that the percentage occurrence in a district might, in the long term be a better way of monitoring predator/nocturnal animal abundance. As with the ungulates Meester et al 1964 is followed in determining the sequence of predators in this discussion. (Table 8).

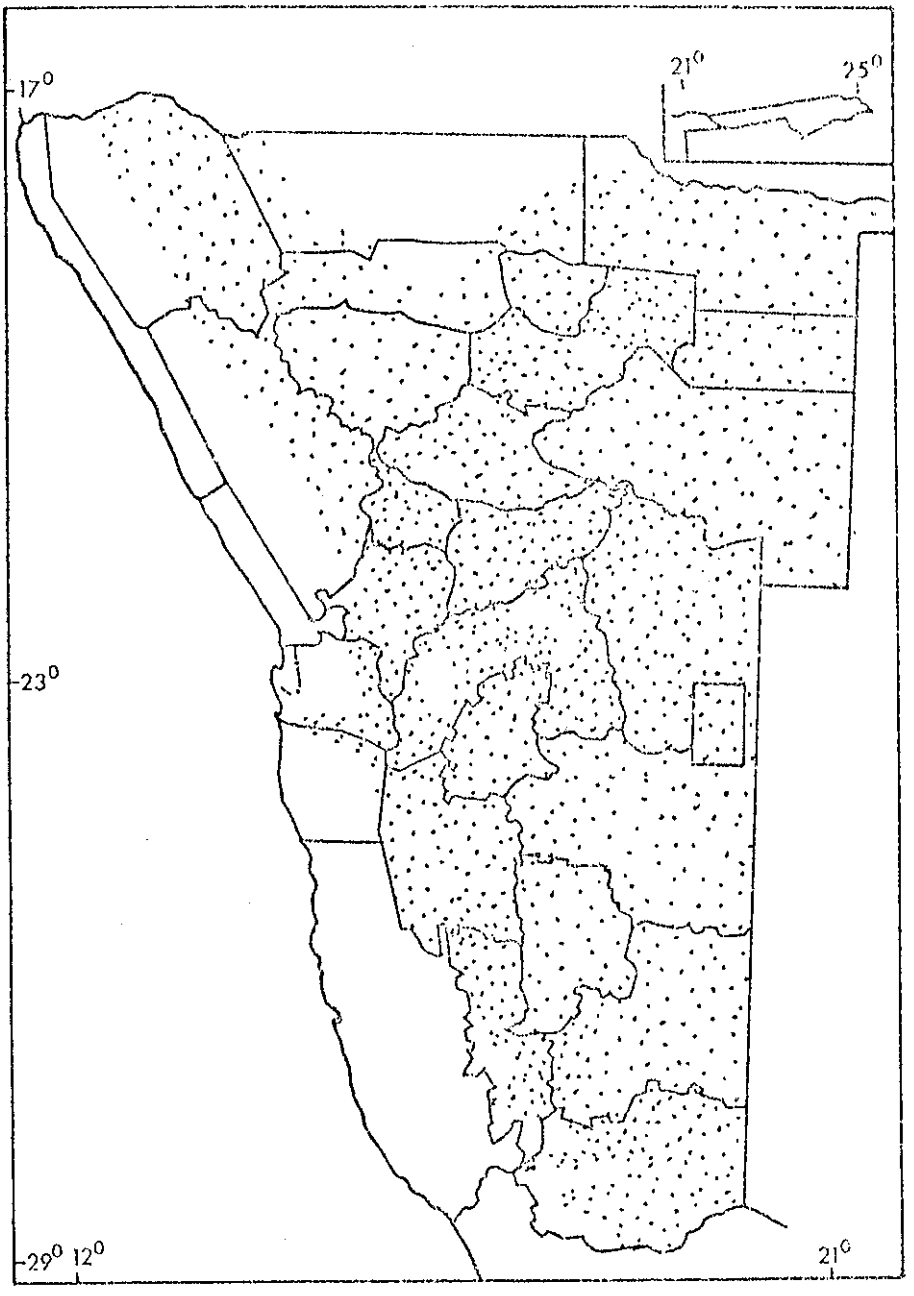
4.4.1 Bat-eared fox Otocyon megalotis Desmarest.

Shortridge (1934) and Joubert and Mostert (1975) reported that bat-eared foxes occur throughout SWA. This fact is borne out by the percentage occurrence on farms in the Territory. In 11 of the 14 districts a percentage occurrence of more than 50% was recorded; in eight districts, more than 60% and in two districts (Okahandja and Karasburg) more than 80%. The average percentage occurrence for the whole territory is 58.0%. This is an

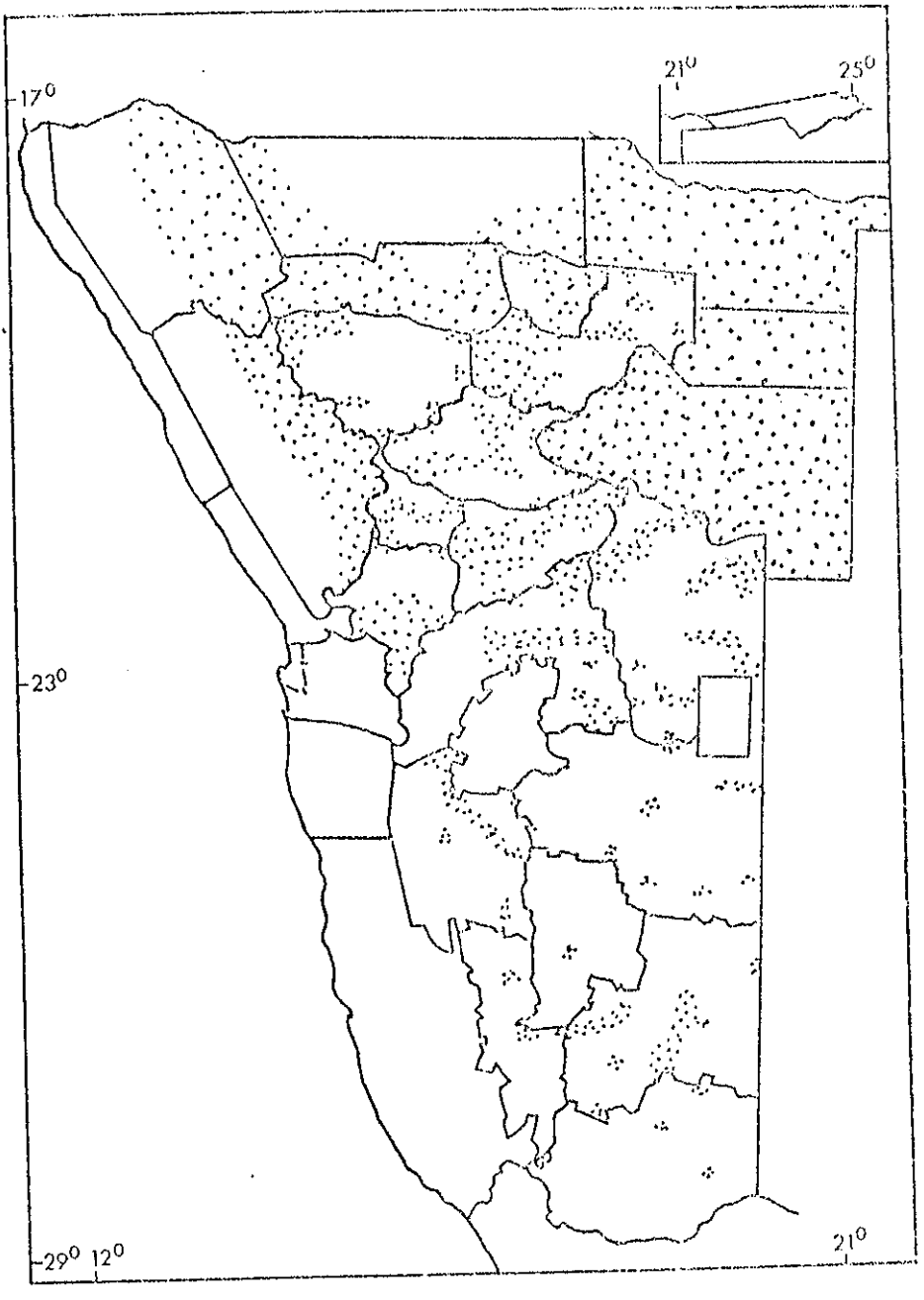
TABLE 8. THE OCCURRENCE (A) AND PERCENTAGE OCCURRENCE (B) OF THE PREDATORS AND SOME OTHER SPECIES ON FARMS IN SOUTH WEST AFRICA

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	ANIMAL SPECIES																																			
		BAT-EARED FOX		CAPE FOX (SILVER FOX)		BLACK-BACKED JACKAL		CAPE HUNTING DOG		HONEY BADGER		SMALL SPOTTED GENET		AARDWOLF		BROWN HYAENA		SPOTTED HYAENA		AFRICAN WILD CAT		BLACK FOOTED CAT		SERVAL		LYNX		LEOPARD		LION		CHEETAH		SPRING-HARE		PORCUPINE		BABOON		ROCK HYRAX	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
TSUMEB	65	34	52,3	23	35,4	40	61,5	0	0,0	38	58,5	31	47,7	25	38,5			13	20,0	32	49,2	15	23,0	19	29,2	46	70,8	26	40,0			32	49,2	30	46,2	51	78,5	18	28,6	6	9,2
GROOTFONTEIN	333	150	45,0	71	21,3	148	44,4	51	15,3	187	56,1	152	45,6	126	37,8			52	15,6	172	51,7	53	15,9	72	21,6	139	41,7	100	30,0			205	61,6	190	57,0	224	73,3	108	32,4	90	27,0
OUTJO	224	144	64,3	75	33,5	165	73,7	19	8,5	145	64,7	115	51,3	107	47,8			33	14,7	126	56,2	50	22,3	31	13,8	191	85,3	127	56,7			164	73,2	116	51,8	177	79,0	133	59,4	157	70,1
OTJIWARONGO	218	118	54,1	61	28,0	152	69,7	3	1,4	147	67,4	107	49,0	106	48,6			9	4,1	104	47,7	26	11,9	40	18,3	174	79,8	97	44,5			180	82,6	150	68,8	172	78,9	101	46,3	79	27,7
OMARURU	89	54	60,7	30	33,7	60	67,4	1	1,1	60	67,4	44	49,4	51	57,3			4	4,5	51	57,3	14	15,9	12	13,5	72	80,8	57	64,0			77	86,5	56	62,9	68	74,1	57	64,0	44	49,4
KARIBIB	78	48	61,5	31	39,7	60	76,9	1	1,2	54	69,2	31	39,7	39	50,0			12	15,4	46	60,0	15	19,2	13	16,7	60	76,9	40	51,3			48	61,5	46	59,0	62	79,5	53	67,9	63	80,8
OKAHANDJA	179	100	56,6	62	35,0	119	67,2	0	0,0	105	59,3	75	42,4	77	43,5			10	5,6	67	37,9	29	16,4	31	17,5	128	72,3	61	34,1			135	76,3	121	68,4	131	74,0	62	35,0	64	35,8
WINDHOEK	282	167	59,2	97	34,4	220	78,0	5	1,8	156	55,3	124	44,0	141	50,0			36	12,8	166	58,9	26	9,2	46	16,3	213	75,5	111	39,4			177	75,7	175	62,0	212	75,2	181	64,2	131	46,5
GOBABIS	396	159	40,2	133	33,6	296	74,7	31	7,8	182	46,0	180	45,5	58	14,6			33	8,3	207	52,3	38	9,6	42	10,6	320	80,8	35	8,8			189	47,7	308	77,8	300	75,8	148	37,2	39	9,8
MARIENTAL	319	222	69,6	144	49,1	215	67,4	6	1,9	197	61,8	193	60,5	128	41,1			4	1,3	166	52,0	5	1,6	22	6,9	225	70,5	3	0,9			17	5,3	106	33,2	161	50,5	23	7,2	30	9,4
MALTAHÖHE	84	56	66,7	36	42,9	75	89,2	0	0,0	46	54,8	52	61,9	46	54,8			5	6,0	72	85,7	17	20,2	12	14,3	74	88,1	40	47,6			45	53,6	6	7,1	78	92,9	70	83,3	49	58,3
BETHANIE	82	27	32,9	15	18,3	44	53,7	0	0,0	31	37,8	32	39,0	26	31,7			1	1,2	55	67,0	0	0,0	3	3,7	59	72,0	21	25,6			23	28,0	7	8,5	48	58,5	50	61,0	56	68,3
KEETMANSHOOP	186	119	64,0	85	45,7	108	58,1	3	1,6	108	58,1	105	56,5	60	32,3			3	1,6	148	79,6	19	10,2	19	10,2	137	73,7	20	10,8			7	3,8	74	39,8	142	76,3	67	36,0	105	56,5
KARASBURG	132	106	80,3	79	59,8	92	69,1	0	0,0	63	48,1	75	56,8	54	40,9			3	2,3	115	87,1	0	0,0	8	6,1	78	59,5	28	21,2			22	16,7	108	81,8	118	89,4	52	39,7	80	60,6

Cape wild cat



Black footed cat



percentage occurrence for the brown hyaena is 7.3%.

4.4.9 Spotted hyaena Crocuta crocuta Erxleben

The 1972 questionnaire survey did not include the spotted hyaena. Joubert and Mostert Op cit however, postulated about their distribution on private land. The 1982 survey shows that they occur throughout SWA on farms, albeit in very low numbers. In the southern districts very few farms reported spotted hyaena. In the central and northern districts they seem to be slightly more abundant. Grootfontein, Outjo, Windhoek and Gobabis appear to be the districts with the highest numbers. The average percentage occurrence is 8.5% for all of the South West African farming regions.

4.4.10 African wild cat Felis libyca Forster

The African wild cat occur throughout the Territory. According to the 1982 survey they reach their highest percentage occurrence on farms in the far southern districts. The central districts also show a relatively high percentage occurrence. The percentage occurrence for all the private land was determined to be 59.6%, which places it amongst the animals with the highest average percentage occurrence. Based on this information one can safely postulate that they still occur in relatively high numbers on south west african farms.

4.4.11 Black-footed cat Felis nigripes Burchell

According to the 1982 questionnaire survey the black-footed cat does not occur in two of the southern districts (Bethanie and

Karasburg) and only on 19 farms in the Keetmanshoop district. It could be that these animals are more sensitive to anti-depredation measures exercised by farmers or that, due to their noctural and secretive habits their presence is more difficult to confirm. Thus, they may be more common than the survey suggests. It could be argued that this should also hold true for the African wild cat, of which the presence was recorded by a large number of farmers. The former species, however, is much smaller and its feeding habits are such that it rarely threatens any live stock (chickens etc). The larger African wild cat is known to take poultry and small stock. Farmers would therefore be more aware of the presence of this species. Be as it may the average percentage occurrence of the black footed cat, according to the 1982 survey is a figure of 11.6%.

4.4.12 Serval Felis serval Schreber

The 1982 questionnaire returns show this animal to have a higher percentage occurrence in the cattle farming regions of the northern and eastern districts. In the sheep farming western and southern districts they show a lower percentage occurrence. Despite the obvious wide distribution the relatively low average percentage occurrence (14.5%) would indicate that their distribution range occur in low numbers throughout their distribution range.

TABLE 16: CHEETAH (ACINONYX JUBATUS): AN ANALYSIS OF THE OCCURRENCE, DAMAGE CAUSED AND NUMBERS KILLED BY FARMERS DURING 1981 ON SOUTH WEST AFRICAN FARMS

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS - CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
TSUMEB	65	32	49,2	21	32,3	5	7,7	10
GROOTFONTEIN	333	205	61,6	144	43,2	26	7,8	105
OUTJO	224	164	73,2	138	61,6	41	18,3	126
OTJIWARONGO	218	180	82,6	126	57,8	41	18,8	129
OMARURU	89	77	86,5	71	79,8	14	15,7	37
KARIBIB	78	48	61,5	36	75,0	10	12,8	49
OKAHANDJA	133	129	97,0	129	97,0	25	18,8	76
WINDHOEK	282	177	75,7	134	47,5	23	8,1	115
GOBABIS	396	189	47,7	142	35,9.	9	2,3	64
MARIENTAL	319	17	5,3	16	5,0	0	0,0	0
MALTAHÖHE	84	45	53,6	34	40,5	3	3,6	11
BETHANIE	82	23	28,0	14	17,1	2	2,4	2
KEETMANSHOOP	186	7	3,8	6	3,2	1	0,5	2
KARASBURG	132	22	16,7	20	15,2	2	1,5	11

TABLE 1: THE ATTITUDE EXPRESSED BY FARMERS TO THE NATURE CONSERVATION LEGISLATION IN SOUTH WEST AFRICA

DISTRICT	NUMBER OF QUESTIONNAIRE RETURNS	NUMBER OF FARMERS REACTING	NATURE CONSERVATION LEGISLATION					
			NUMBERS			PERCENTAGE		
			SATISFIED	DISSATISFIED	NON-COMMITTAL	SATISFIED	DISSATISFIED	NON-COMMITTAL
TSUMEB	65	70	25	11	34	35,7	15,7	48,6
GROOTFONTEIN	333	325	96	26	203	29,5	8,0	62,5
OUTJO	224	222	93	40	89	42,0	18,0	40,0
OTJIWARONGO	218	184	59	29	96	32,0	15,8	52,2
OMARURU	89	88	25	18	45	28,4	20,5	20,5
KARIBIB	78	82	32	12	38	39,0	14,6	46,3
OKAHANDJA	134	104	59	45	30	44,0	33,6	22,4
WINDHOEK	282	147	86	38	23	58,5	25,9	15,6
GOBABIS	396	288	129	39	120	44,8	13,5	41,7
MARIENTAL	319	297	138	84	75	46,5	28,3	25,2
MALTAHÖHE	84	74	31	19	24	41,9	25,7	32,4
BETHANIE	82	75	40	17	18	53,3	22,7	24,0
KEETMANSHOOP	186	167	73	58	36	43,7	34,7	21,6
KARASBURG	132	107	41	34	32	38,3	31,8	29,9
	2 621	2 126	868	425	833	40,8	20,0	39,2

59,2

TABLE A COMPARISON OF THE OCCURRENCE AND DAMAGE CAUSED BY CERTAIN MAMMAL SPECIES ON FARMS IN SOUTH WEST AFRICA DURING 1981.

ANIMAL SPECIES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
Lynx	1 919	73,2	1 399	53,4	406	29,0	2 800
Black-backed jackal	1 799	68,6	1 300	49,6	552	42,5	7 350
Cheetah	1 344	51,3	1 031	39,4	202	19,6	737
Porcupine	1 981	75,6	974	37,2	159	16,3	3 659
Baboon	1 166	44,5	644	25,6	104	16,1	3 731
Cape wild cat	1 562	59,6	664	25,3	236	35,4	2 563
Leopard	766	29,2	513	19,6	74	14,4	135
Spring-hare	1 522	58,0	472	18,0	43	9,1	1 370
Antbear	1 647	62,8	444	16,9	52	11,7	378
Cape fox	958	36,6	421	16,0	76	18,0	1 024
Honey badger	1 547	59,0	317	12,1	66	20,8	213
Small-spotted genet	1 327	50,6	284	10,8	41	14,4	295
Bat-eared fox	1 521	58,0	120	7,9	25	20,8	592
Cape wild dog	122	4,7	75	2,9	8	10,7	78
Black-footed cat	304	11,6	76	2,9	3	3,9	43
Hyaena	224	8,5	77	2,9	23	29,9	61
Aard wolf	1 076	41,0	61	2,3	25	41,0	372
Serval	381	14,5	57	2,1	0	0,0	0
Brown hyaena	193	7,3	37	1,4	0	0,5	4
Warthog	1 626	62,0	16	0,6	0	0,0	309
Rock hyrax	971	37,0	0	0,0	6	0,2	690

TABLE 15: LEOPARD (PANTHERA PARDUS): AN ANALYSIS OF THE OCCURRENCE, DAMAGE CAUSED AND NUMBERS KILLED BY FARMERS DURING 1981 ON SOUTH WEST AFRICAN FARMS

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS - CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
TSUMEB	65	26	40,0	17	26,2	3	4,6	7
GROOTFONTEIN	333	100	30,0	60	18,0	5	1,5	18
OUTJO	224	127	56,7	103	46,0	18	8,0	24
OTJIWARONGO	218	97	44,5	46	21,1	6	2,8	7
OMARURU	89	57	64,0	44	49,1	10	11,2	10
KARIBIB	78	40	51,3	19	24,4	4	5,1	6
OKAHANDJA	179	61	34,1	41	22,9	21	0,6	28
WINDHOEK	282	111	39,4	83	74,8	6	2,1	9
GOBABIS	396	35	8,8	17	48,6	2	0,5	11
MARIENTAL	319	3	0,9	3	0,9	0	0,0	0
MALTAHÖHE	84	40	47,6	26	65,0	4	4,8	14
BETHANIE	82	21	25,6	20	24,4	4	4,9	6
KEETMANSHOOP	186	20	10,8	13	7,0	5	2,7	9
KARASBURG	132	28	21,2	22	16,7	2	1,5	3

TABLE 14: LYNX (FELIS CARACAL): AN ANALYSIS OF THE OCCURRENCE, DAMAGE CAUSED AND NUMBERS KILLED BY FARMERS DURING 1981 ON SOUTH WEST AFRICAN FARMS

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS - CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
TSUMEB	65	46	70,8	27	41,5	7	10,8	44
GROOTFONTEIN	333	139	41,7	129	38,7	20	6,0	50
OUTJO	224	191	85,3	82	36,6	59	26,3	159
OTJIWARONGO	218	174	79,8	137	62,8	19	8,7	89
OMARURU	89	72	80,8	53	59,6	6	6,7	24
KARIBIB	78	60	76,9	44	56,4	8	10,2	23
OKAHANDJA	179	128	72,3	66	37,3	39	11,3	92
WINDHOEK	282	213	75,5	127	45,0	20	7,1	165
GOBABIS	396	320	80,8	209	56,6	34	8,6	291
MARIENTAL	319	225	70,5	191	59,9	23	7,2	188
MALTAHÖHE	84	74	88,1	63	75,0	68	81,0	395
BETHANIE	82	59	72,0	52	63,4	21	25,6	135
KEETMANSHOOP	186	137	73,7	125	67,2	70	37,6	890
KARASBURG	132	78	59,5	73	55,7	36	27,4	288

TABLE 13: BLACK-FOOTED CAT (FELIS NIGRIPES) ("SWARTPOOT WILDEKAT): AN ANALYSIS OF THE OCCURRENCE, DAMAGE CAUSED AND NUMBERS KILLED BY FARMERS DURING 1981 ON SOUTH WEST AFRICAN FARMS

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS - CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
TSUMEB	65	15	23,0	4	6,2	0	0,0	0
GROOTFONTEIN	333	53	15,9	10	3,0	0	0,0	0
OUTJO	224	50	22,3	6	2,7	0	0,0	0
OTJIWARONGO	218	26	11,9	5	2,3	0	0,0	0
OMARURU	89	14	15,7	0	0,0	0	0,0	0
KARIBIB	78	15	19,2	7	9,0	0	0,0	0
OKAHANDJA	179	29	16,4	4	2,3	1	0,0	5
WINDHOEK	282	26	9,2	0	0,0	0	0,0	0
GOBABIS	396	38	9,6	3	0,8	0	0,0	0
MARIENTAL	319	5	1,6	8	2,5	1	0,3	9
MALTAHÖHE	84	17	20,2	9	10,7	1	1,2	2
BETHANIE	82	0	0,0	0	0,0	0	0,0	0
KEETMANSHOOP	186	19	10,2	15	8,1	0	0,0	0
KARASBURG	132	0	0,0	3	2,3	1	0,7	32

TABLE 15: SERVAL (FELIS SERVAL) ("TIERBOSKAT"): AN ANALYSIS OF THE OCCURRENCE DAMAGE CAUSED AND NUMBERS KILLED BY FARMERS DURING 1981 ON SOUTH WEST AFRICAN FARMS

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS - CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
TSUMEB	65	19	29,2	0	0,0	0	0,0	0
GROOTFONTEIN	333	72	21,6	7	2,1	0	0,0	0
OUTJO	224	31	13,8	4	1,8	0	0,0	0
OTJIWARONGO	218	40	18,3	10	4,6	0	0,0	0
OMARURU	89	12	13,5	1	1,1	0	0,0	0
KARIBIB	78	13	16,7	5	6,4	0	0,0	0
OKAHANDJA	179		23,5	1	2,3	0	0,0	0
WINDHOEK	282	46	16,3	1	0,4	0	0,0	0
GOBABIS	396	42	10,6	4	1,0	0	0,0	0
MARIENTAL	319	22	6,9	8	2,5	0	0,0	0
MALTAHöHE	84	12	14,3	2	2,4	0	0,0	0
BETHANIE	82	3	3,7	2	2,4	0	0,0	0
KEETMANSHOOP	186	19	10,2	5	2,7	0	0,0	0
KARASBURG	132	8	6,1	6	4,5	0	0,0	0

TABLE 12: AFRICAN WILD CAT (FELIS SILVESTRIS CF) ("VAALBOSKAT"): AN ANALYSIS OF THE OCCURRENCE, DAMAGE CAUSED AND NUMBER KILLED BY FARMERS DURING 1981 ON SOUTH WEST AFRICAN FARMS

DISTRICT	NUMBER OF FARMS COVERED BY QUESTIONNAIRES	NUMBER OF FARMS - OCCURRENCE	% OCCURRENCE	NUMBER OF FARMS - CAUSED DAMAGE	% DAMAGE	NUMBER OF FARMS - CONTROL MEASURES	% CONTROL	NUMBERS KILLED ON FARMS
TSUMEB	65	32	49,2	4	6,1	1	1,5	2
GROOTFONTEIN	333	172	51,7	34	10,2	9	2,7	57
OUTJO	224	126	56,2	28	12,5	15	6,7	32
OTJIWARONGO	218	104	47,7	17	7,8	0	0,0	0
OMARURU	89	51	57,3	5	5,6	7	7,9	8
KARIBIB	78	46	60,0	21	26,9	0	0,0	0
OKAHANDJA	179	67	37,9	14	7,9	7	1,5	12
WINDHOEK	282	166	58,9	56	19,9	6	2,1	31
GOBABIS	396	207	52,3	47	11,9	6	1,5	25
MARIENTAL	319	166	52,0	99	31,0	58	18,2	607
MALTAHÖHE	84	72	85,7	59	70,2	20	23,8	204
BETHANIE	82	55	67,0	48	58,5	17	20,7	120
KEETMANSHOOP	186	148	79,6	137	73,7	60	32,3	984
KARASBURG	132	115	87,1	92	69,7	35	26,5	488

TABLE THE ATTITUDE EXPRESSED BY FARMERS TO THE COYOTE GETTER TRAINING PROGRAMME IN SOUTH WEST AFRICA

DISTRICT	NUMBER OF FARMERS REACTING	COYOTE GETTER CERTIFICATES						
		NUMBERS				PERCENTAGE		
		IN POSSESSION	NOT IN POSSESSION	INTERESTED TO OBTAIN	NOT INTERESTED	IN POSSESSION	INTERESTED TO OBTAIN	NOT INTERESTED
TSUMEB	70	7	63	11	52	10,0	15,7	74,2
GROOTFONTEIN	325	17	308	30	278	5,2	9,2	85,5
OUTJO	222	8	214	31	183	3,6	14,0	82,4
OTJIWARONGO	184	0	184	23	161	0,0	12,5	87,5
OMARURU	88	0	88	10	78	0,0	11,4	88,6
KARIBIB	82	11	71	4	67	13,4	4,9	81,7
OKAHANDJA	134	0	134	16	118	0,0	11,9	88,1
WINDHOEK	118	19	109	24	75	16,1	20,3	63,6
GOBABIS	288	5	283	42	241	1,7	14,6	83,7
MARIENTAL	297	37	260	65	195	12,5	21,8	65,7
MALTAHÖHE	74	22	52	15	37	29,7	20,3	50,0
BETHANIE	75	10	65	14	51	13,3	18,7	68,0
KEETMANSHOOP	167	18	149	55	94	10,8	32,9	56,3
KARASBURG	107	21	86	22	64	19,6	20,6	59,8
SOUTHERN DISTRICTS	720	108		171	441	15,0	23,8	61,2

38,8