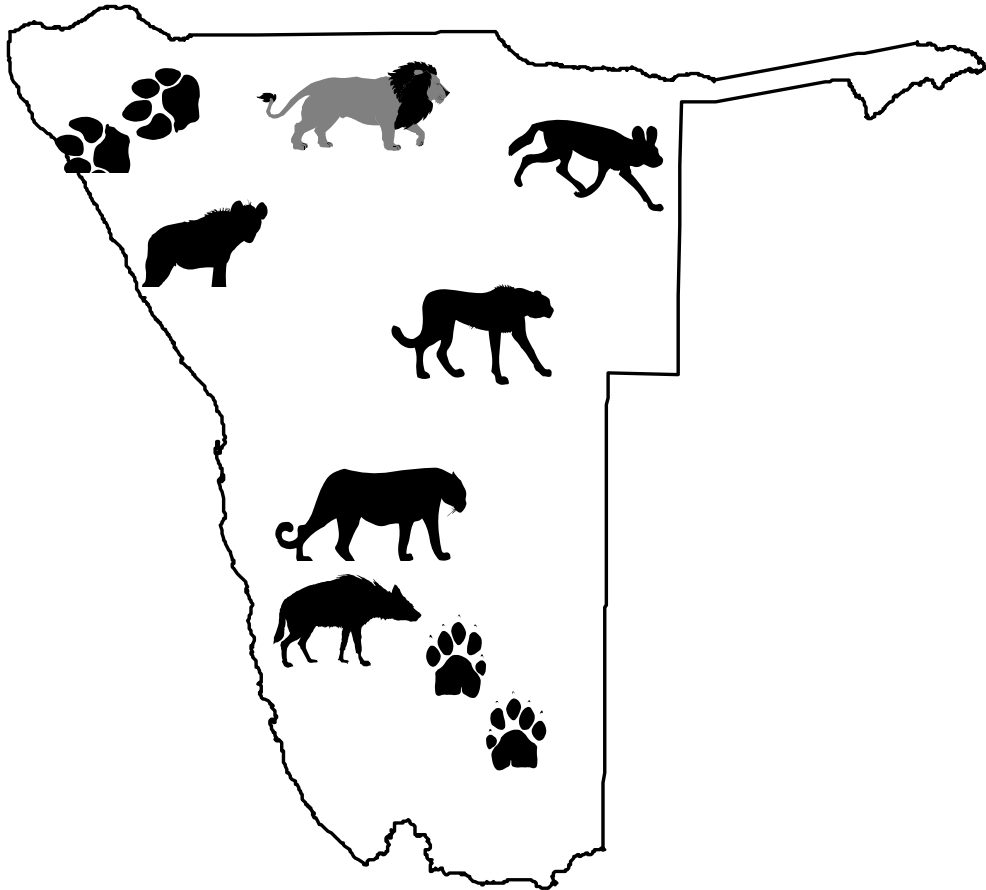




Namibia Predator Research Programme

Namibia Large Carnivore ATLAS

Progress Report - May 2001



Namibia Large Carnivore ATLAS data forms are circulated widely among the general public, tourism enterprises, conservancies, NGO's and MET staff.

Data analysed & report compiled by: Dr. P. Stander

Data management and entry: Ms. L. Hanssen

Data entry: Ms. Wilma Moller, Ms. J. Junker

Funding and support from: Min. Environment & Tourism



Namibia Predator Research Programme
Namibia Large Carnivore ATLAS – May 2001

Data analysed by:
P.Stander MET

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A total of 2206 ATLAS data forms were received from observers throughout Namibia. The names of all individuals and the number of ATLAS forms received are listed below. Observers are thanked for their contributions.

Observer	Total	D.Ferguson	1	J.Fourie	3
#Oma	4	D.Gilcrest	7	J.Friede	2
Ui	10	D.Heinrich	19	J.Grutemeyer	1
Ui & #Oma	12	D.Houghton	1	J.Hein	5
A. Engelbrecht	1	D.Houghton & R.Bower	21	J.Hennig	9
A. Uarje	1	D.Liebenberg	5	J.Junker	8
A.Alberts	108	D.Masen	4	J.Katuuo	4
A.Alberts & D.Masen	1	D.Medais	7	J.Kemper, J-P.Roux	1
A.Alfred	1	D.Mezies	2	J.Kolbooi	2
A.Cilliers	8	D.Murray	4	J.Lenssen	41
A.Esterhuizen	14	D.Robertson	1	J.Lombard	9
A.Gawuseb	2	D.Rudman	5	J.Masen	12
A.J.L van Zyl	1	D.Seidel	2	J.Meeser	1
A.Jagger & M.Nawaseb	1	D.Seidel, Ingrid	2	J.Oliver	3
A.Katangara	4	D.Sobotta	2	J.Owuseb	2
A.Keding	1	D.Steyn	10	J.Patterson	2
A.Kenahama	1	D.Ward	13	J.Rabie	1
A.Kronitz & D.Heinrich	2	D.Weeks	1	J.Ras	12
A.Leuschner	1	Damaraland Camp	1	J.Rhachford	1
A.Lodge & C.Conradie	1	E.Diekmann	1	J.Seufert	2
A.Mapanka	2	E.Gous	1	J.Steenkamp	6
A.Momberg	1	E.Kefas	1	J.vd Heever	1
A.Mostert	1	E.Oosthuisen	1	J.Von Wiligh	1
A.Oosthuisen	22	E.Reinhardt	5	J.Walter	5
A.Stainthorpe	9	E.Ritter	2	Jeremiah - Hobatere	1
A.Uarje	2	E.Sauber	1	Jerasmud	2
A.Viljoen	1	Esme	1	Johannes	2
A.Viljoen & M.Handel	1	Etosha Game Viewers	1	Jonas, SRT	1
Africat	29	F.Heger	2	Josef	1
Alpheus	7	F.Hungua	1	Josef, Andreas, Iyambo	1
B. Chandler	1	F.Kanaira	4	K.Alberts	8
B. van Rooyen	1	F.Pretorius	1	K.Chapu	1
B.Awarab	4	F.Redecker	1	K.Jooste	1
B.Beytell	1	F.von Seydlitz	1	K.Legget	1
B.Brell	17	G.Haroua	2	K.Pienaar	22
B.Combrard	1	G.Hoabeb	70	K.Wagner	10
B.Fox B.Loutit	2	G.Hoarb	1	K.Weinmann	12
B.Katjаланja	1	G.Hoffmann	1	K.Wirriehousen	1
B.Maulhard	1	G.Jsafo	3	Kuispel	1
B.Nebe	17	G.M.Grobler	1	L.Clapham	2
B.Roman	1	G.Owen-Smith	2	L.Erdmann	2
B.Tindal	1	G.Rolt	2	L.Hanssen	4
C.Bakkes	4	G.Uaroua	4	L.Hanssen P.Stander	4
C.Conradie & L.Hanssen	1	G.Utz	7	L.Scheepers	1
C.Craig	1	Game Capture	2	L.vd H	1
C.du Plessis	1	H.Burger	1	M. Hearn, F Nuab,	1
C.Epler	8	H.Erpf	2	M.Alberts	1
C.Eyre	1	H.Falk	2	M.Berry	7
C.Gibson	4	H.Halenke	2	M.Brinckate	2
C.Gibson and M.Rice	2	H.Holzhausen	1	M.Durr	2
C.Hagman	1	H.Jalh	1	M.Figuera	1
C.Karsten	1	H.Kuhneit	2	M.Griffin	1
C.Kayser	4	H.Munembome	5	M.Hearn	9
C.M.Chizabulyo	2	H.Purser	2	F Nuab, F. Mukungu	3
C.Mapanka	1	H.Riedel	1	F. Nuab, M Nawaseb	1
C.Matomola	1	Harnas	3	F.Mukunu, L. Karutja	1
C.McClure	2	Hendrick	1	M.Hoeb	1
C.Mentrup	1	Herbert, DAS	3	M.Isak	28
C.Mulisa	1	HO.Reuter	2	Observer	Total
C.Ncube	1	I.Ganuseb	5	M.Koep	2
C.Shackleton	1	I.Wiesel	32	M.Lister	50
C.Zandberg	4	I.Wilckens	6	M.Muheue	3
Chameleon Safaris	1	Observer	Total	M.Taylor	3
Christine	3	IUCN	1	M.Witbeen	4
Conrad	2	J.Adams	9	Martin	2
Observer	Total	J.Awarab	5	Martin, Jonas SRT	1
Crazy Kudu Safari	1	J.Bockman	1	Mattheus, DAS	1
D.Asugeo	1	J.Duffus	1	Mr. Schlechter	1
		J.Erasmus	3	Mr.Hoffman, DAS	1



Namibia Predator Research Programme
Namibia Large Carnivore ATLAS – May 2001

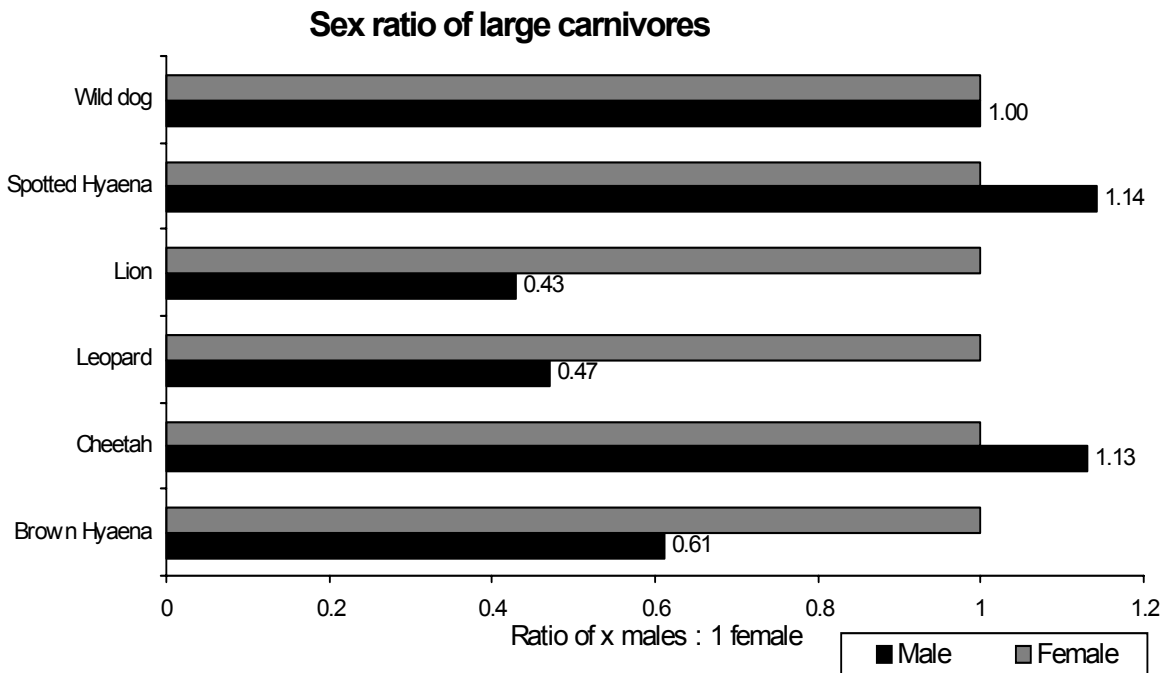
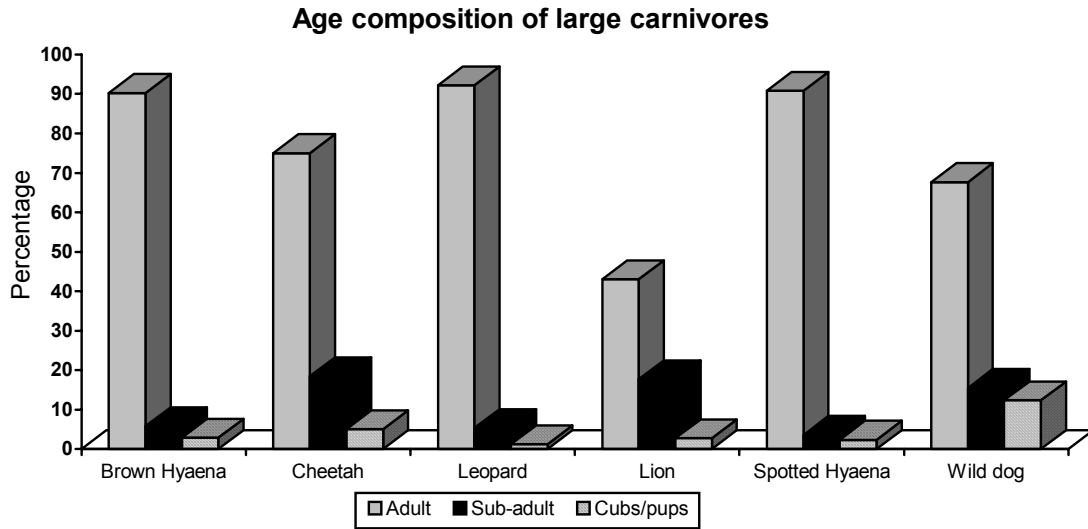
Data analysed by:
 P.Stander MET

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Mrs.Roesener	1	R.Simmons	9	T.Hall	48
N.Berriman	2	R.Vinjevold	11	T.Hoth	1
N.Knox	1	R.Wagner	16	T.Kuvare	1
N.McClure	29	R.Wauschkuhn	1	TGG	1
Nicola	1	Rolf Griem	1	Thys, SRT	3
O.Von Gossler	3	Ryan	1	Tourists	4
Okatumba	14	S.Appleton	1	Tourists - ENP	141
P.Bridgeford	8	S.Braine	31	Tsiseba Debe	6
P.Haradoeb	4	S.Braine & C.Baas	1	U.Hoth	1
P.Lane	1	S.Braine & R. Vinjevold	3	U.Hoth R.Hanssen	3
P.Simon	5	S.Cuyler	1	U.Tjipepa	3
P.Stander	384	S.Maclennan	7	Unknown	1
P.Stander D. Gilcrest	14	S.Patric	3	V.Florry	5
P.Stander J.Junker	46	S.Rutherford	2	V.Gieraths	8
P.Stander L.Hanssen	272	S.Shilombella	3	V.Hoth	1
P.Steenkamp	2	S.Sichombe	2	V.Paulick	2
P.Sulter	1	S.Uri-khob	3	Valsparg	3
P.Tarr	1	S.Way	1	Vossie, MET	2
Patric	1	Sacharias	1	W. Dugas	10
Petrus	3	Sagarias	26	W.Bader	2
R. Dunkley	1	Seblon, SRT	1	W.Hutchence	1
R.Brislin	8	Shadreck	4	W.Killian	13
R.Brislin, C.Bakkes	1	Siehl	1	W.Moller	4
R.Coke	2	Simpson,Jonas,Josef	1	W.Swart	6
Observer	Total	Solomon	1	W.Teichard	1
R.Durr	1	SRT	1	W.Versfeld	9
R.Griffin	1	T.Caspary	1	Walter	1
R.Hoffman	3	T.Cooper	2	Weltevrede	1
R.Kaum	1	Observer	Total	Willem D.	1
R.Loutit	10	T.Davis	1	WWF	1
R.Mooy	1	T.Ginarig	1	Z.Cooper	1
R.Raue	17	T.Gous	1	Z.Schreiber	1

The 2206 ATLAS data forms received consisted of 1203 visual sightings and 831 spoor observations of all six species. The following number of observations per species was recorded.

Species	Number of observations
Lion	826
Leopard	429
Cheetah	282
Spotted hyaena	433
Brown hyaena	247
Wild dog	57
TOTAL	2274



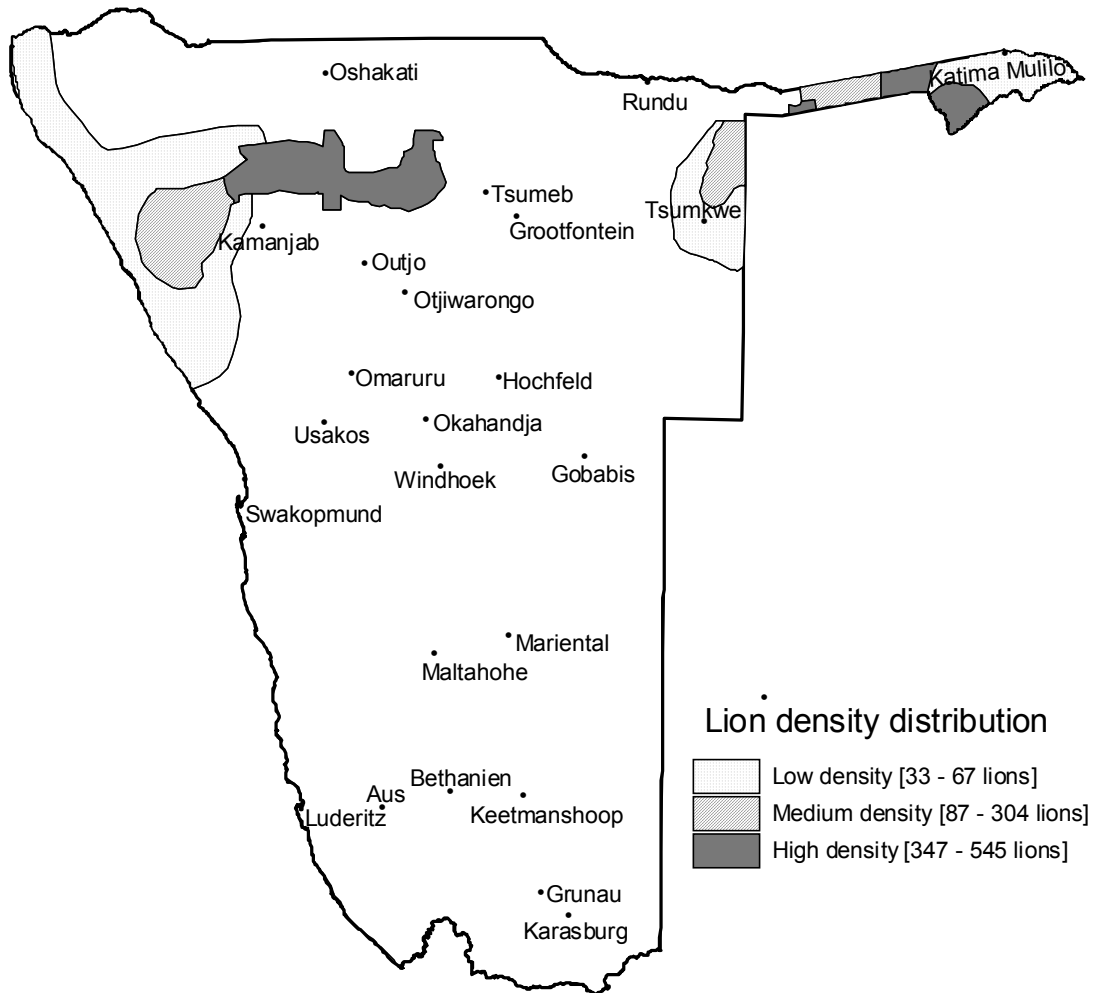


Different habitats where large carnivores were observed based on 2023 observations.

Habitat	Lion	Leopard	Cheetah	Spotted Hyaena	Brown Hyaena	Wild dog	Total
Beach					7		7
Dolomite ridge	3		1				4
Dry pan	8		1		1	1	11
Dry river bed	173	74	37	44	28		356
Dunes	1			4	6		11
Flood plain	5			1			6
Gravel plains	8			1	3		12
Hill	3		1				4
Hillside	2		2				4
Koppie/mountains	7	8	1				16
Koppies	6	52	1		1		60
Mopane woodland	5	1	3		2		11
Mountain side	2						2
Mountains	61	70	13	15	31		190
Open mopane woodland	32	4	2	2	2	1	43
Open savannah	95	24	54	46	13	13	245
Other	23	29	10	23	84	4	173
Plains	48	22	80	80	16	3	249
Rocky thickets			6				6
Shrub mopane	16	18	3	35	2		74
Shrub savannah	4						4
Spring	61	9	10	19	5		104
Spring/mountain	3						3
Spring/riverbed	7						7
Thickets/plains	5		1				6
Valley	1	1					2
Waterhole	65	31	7	60	16	12	191
Wood thickets	42	25	16	25	14	13	135
Woods	35	17	5	25	1	4	87
Total	721	385	254	380	232	51	2023

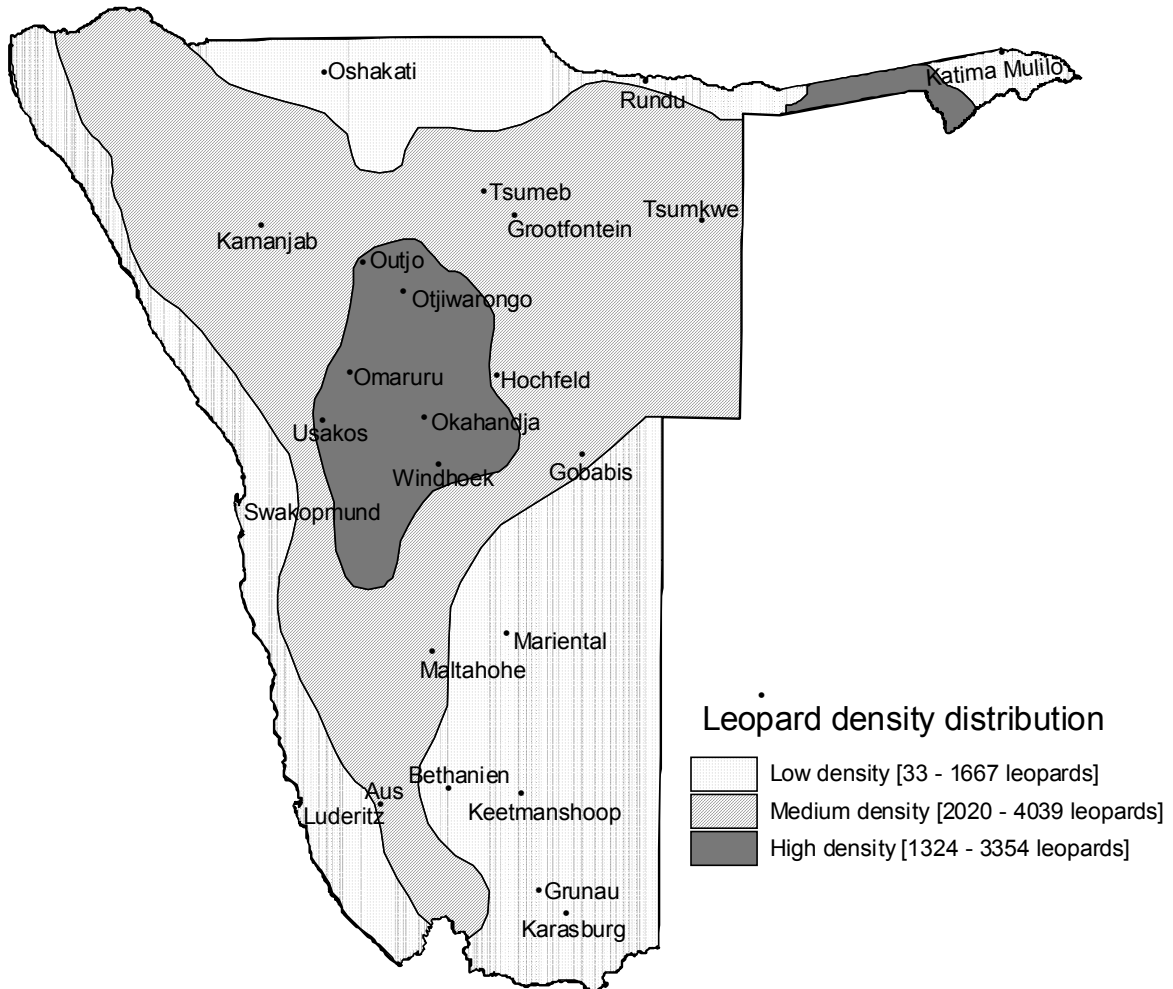


Lion



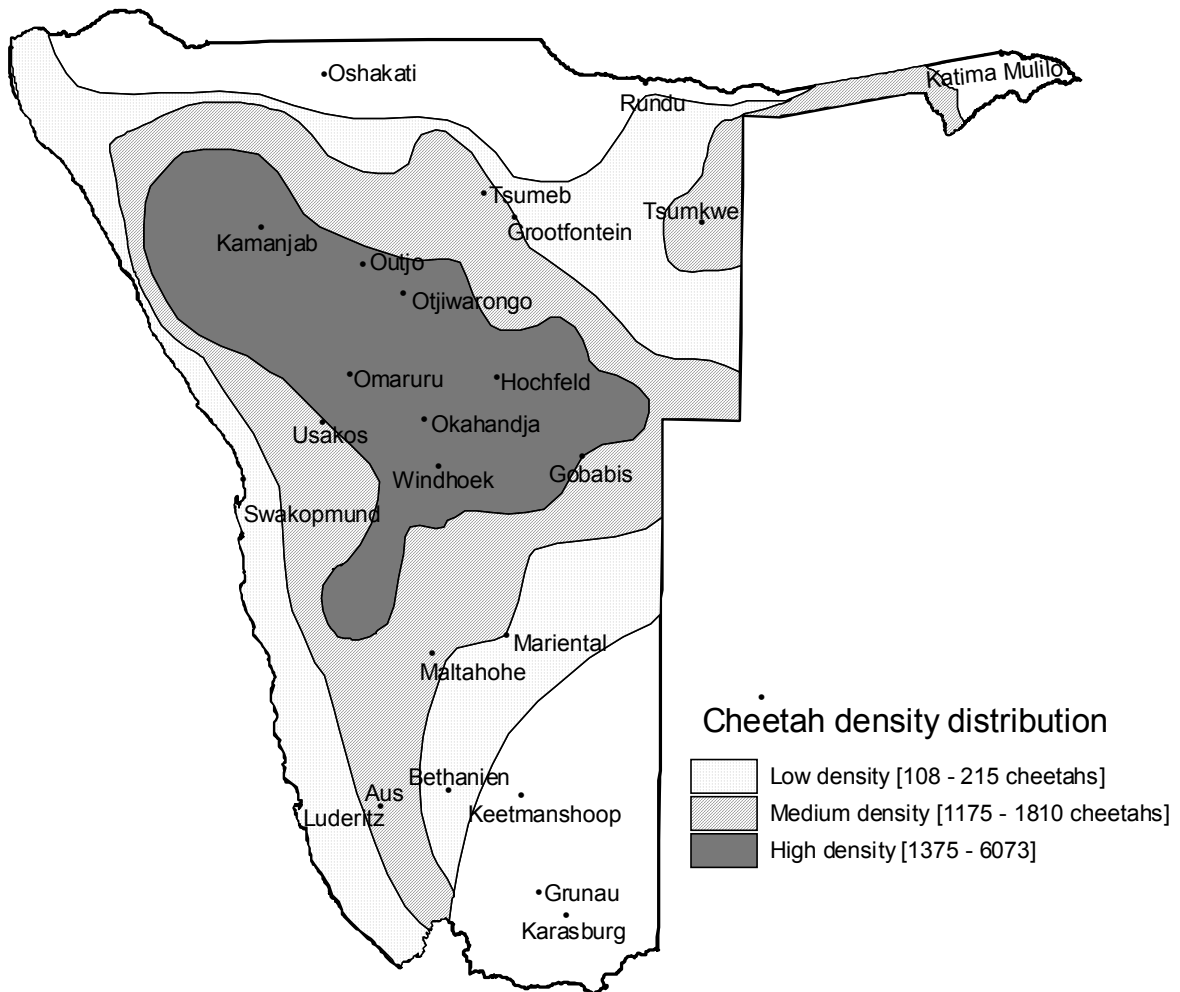


Leopard



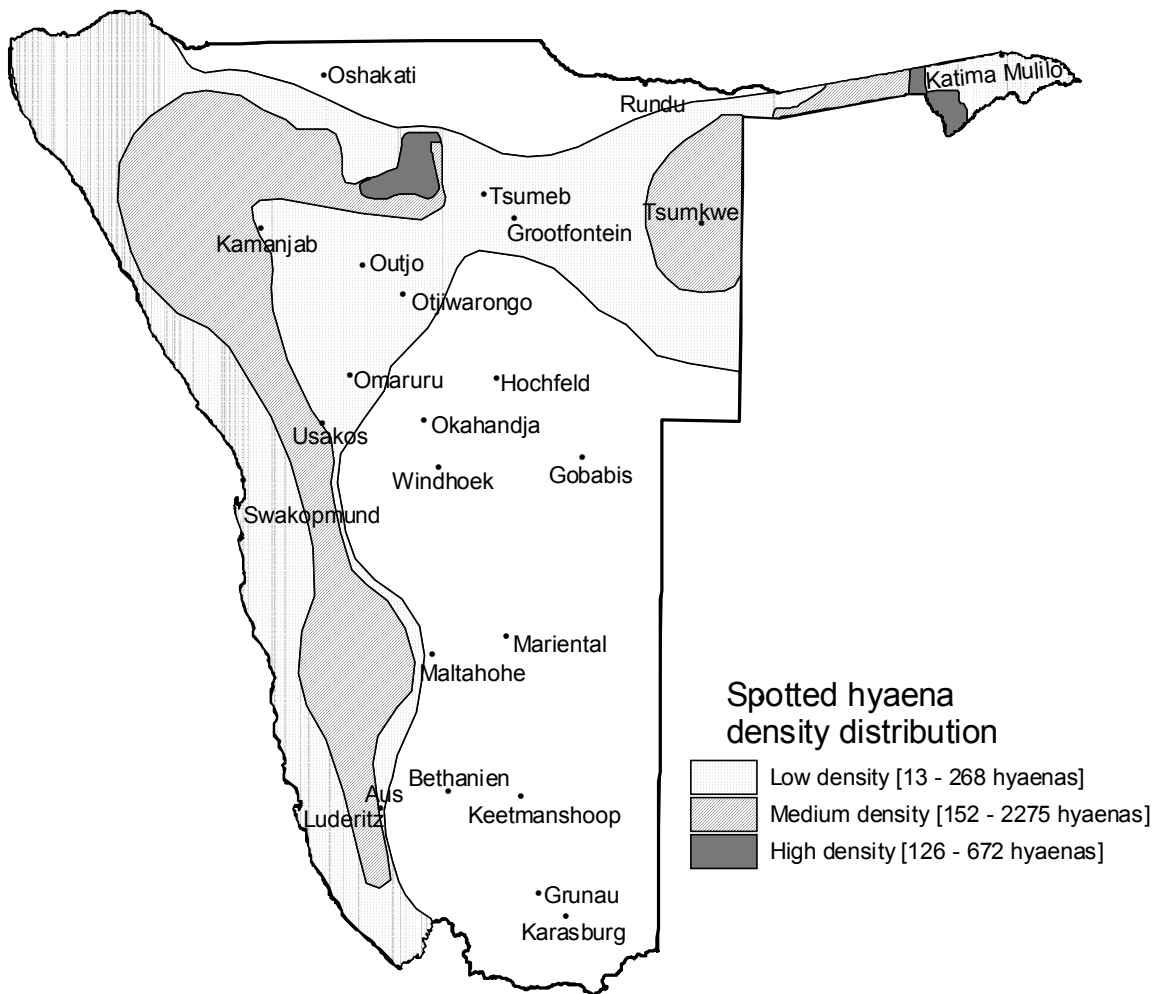


Cheetah



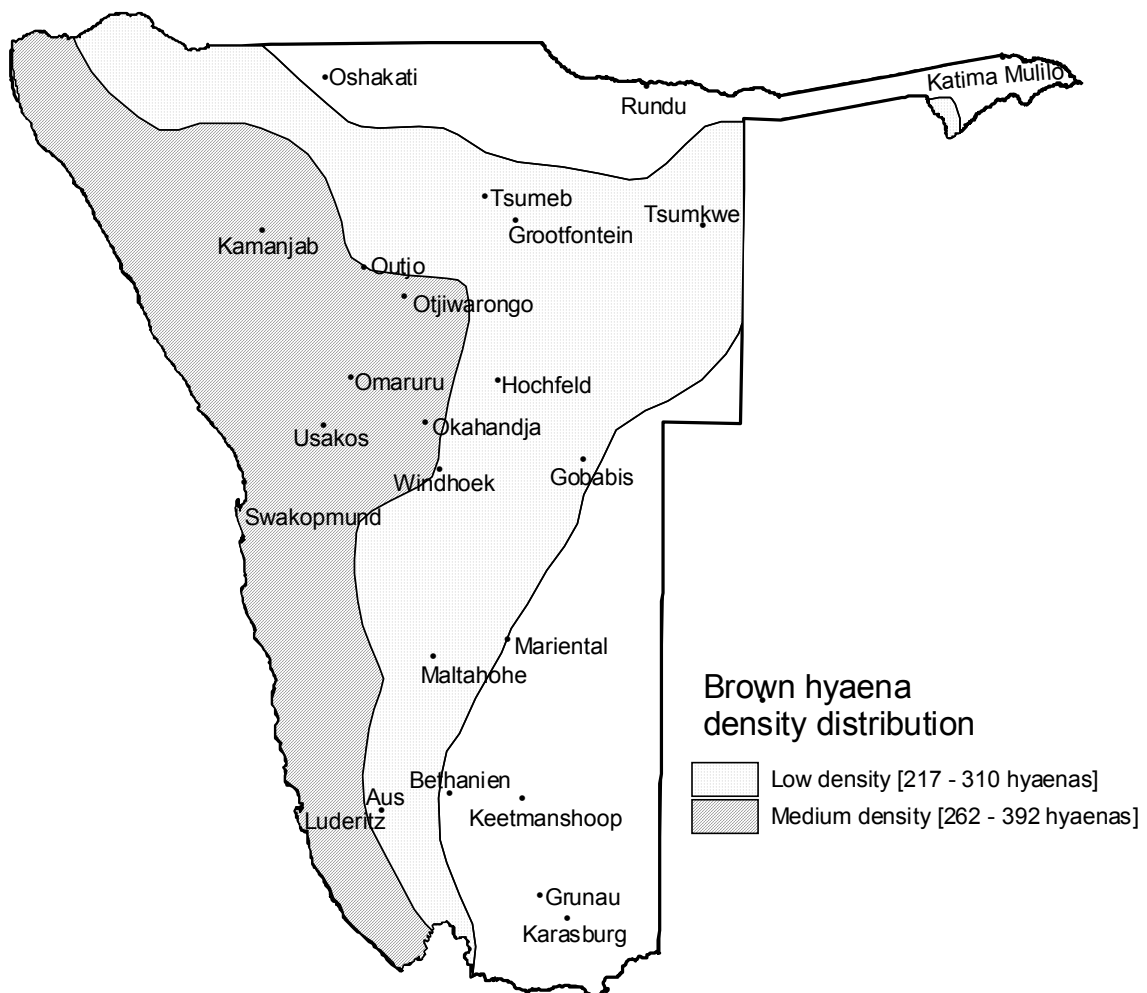


Spotted hyaena



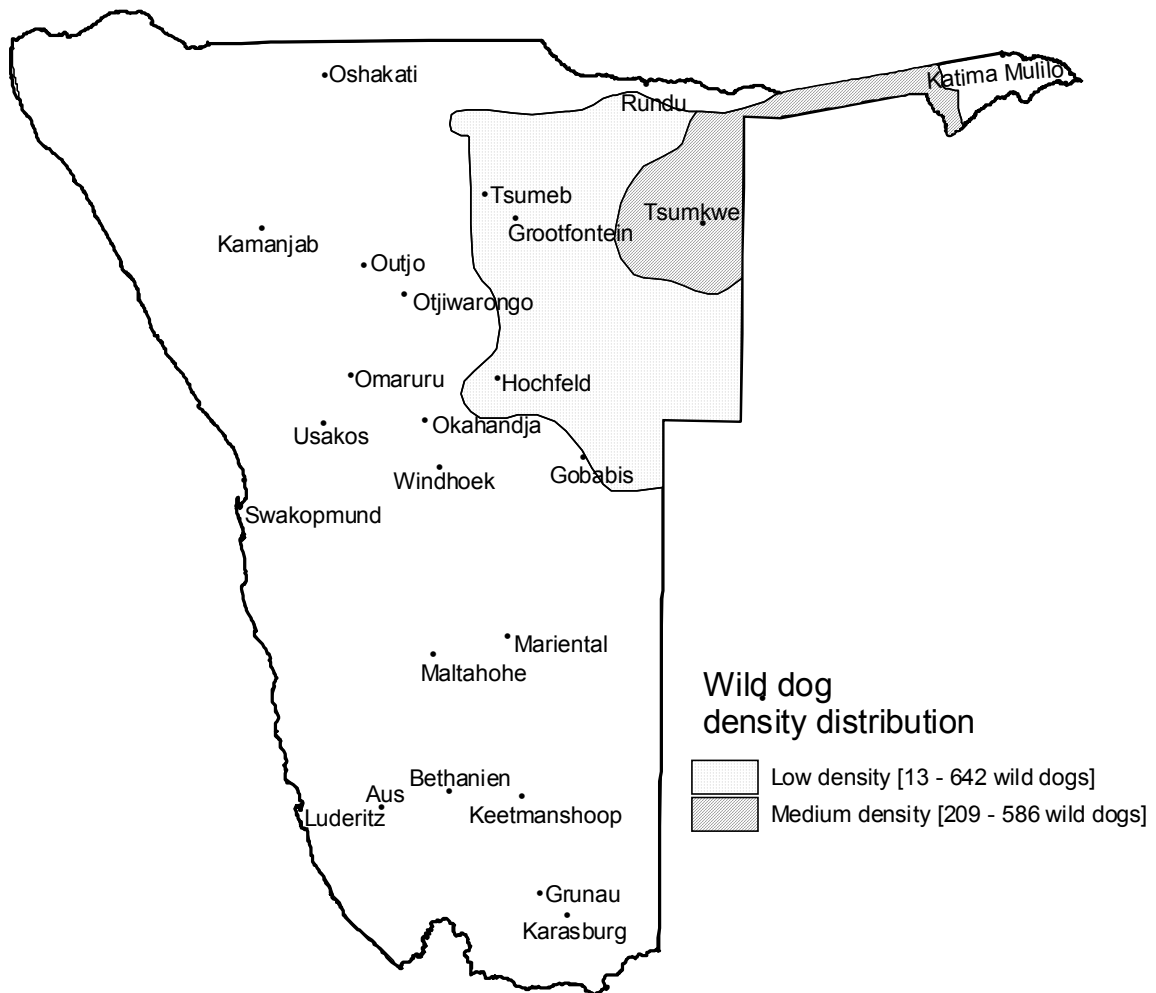


Brown hyaena





Wild dog





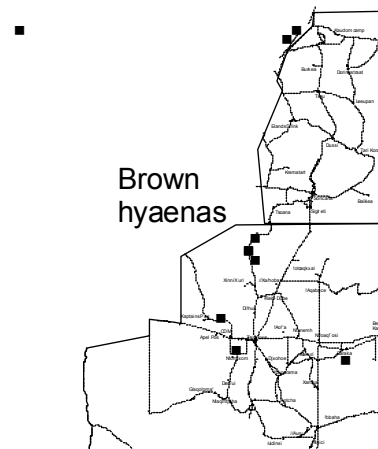
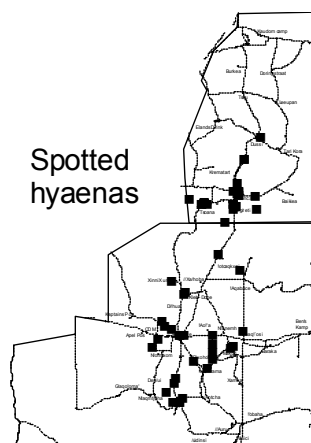
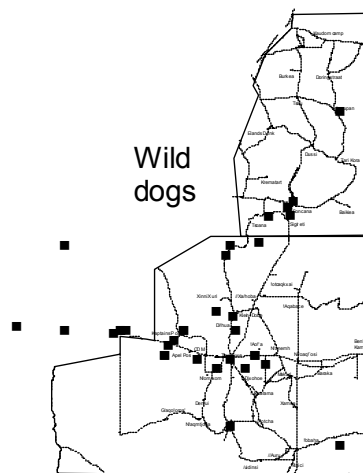
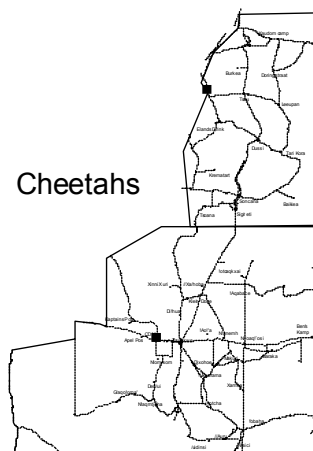
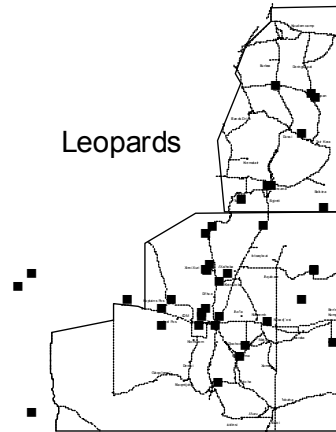
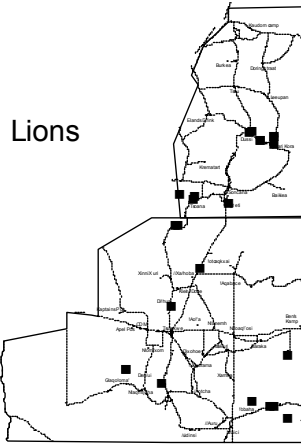
Population density estimates of six large carnivore species. Density distributions were calculated from Atlas data using harmonic mean contouring on a GIS programme, and density estimates are based on intensive studies in Etosha National Park, Kaudom Game Reserve, Nyae Nyae Conservancy, Otjiwatrongo District and Kunene Region.

Species	Low density				
	Area (km ²)	Density (100 km ⁻²)		Estimated numbers	
		Min	Max	Min	Max
Lion	66,608	0.05	0.10	33	67
Leopard	333,418	0.01	0.50	33	1667
Cheetah	215,473	0.05	0.10	108	215
Spotted Hyaena	267,787	0.01	0.10	13	268
Brown Hyaena	309,819	0.07	0.10	217	310
Wild Dog	128,440	0.01	0.50	13	642
Medium density					
	Area (km ²)	Density (100 km ⁻²)		Estimated numbers	
		Min	Max	Min	Max
Lion	21,707	0.40	1.40	87	304
Leopard	403,916	0.50	1.00	2020	4039
Cheetah	235,089	0.50	0.77	1175	1810
Spotted Hyaena	151,658	0.10	1.50	152	2275
Brown Hyaena	261,666	0.10	0.15	262	392
Wild Dog	41,833	0.50	1.40	209	586
High density					
	Area (km ²)	Density (100 km ⁻²)		Estimated numbers	
		Min	Max	Min	Max
Lion	24,774	1.40	2.20	347	545
Leopard	88,254	1.50	3.80	1324	3354
Cheetah	178,629	0.77	3.40	1375	6073
Spotted Hyaena	8,399	1.50	8.00	126	672
Brown Hyaena					
Wild Dog					

Species	National Population estimate	Estimate range	
		Min	Max
Lion	691	467	916
Leopard	6,218	3,377	9,060
Cheetah	5,379	2,659	8,099
Spotted Hyaena	1,753	291	3,215
Brown Hyaena	590	479	702
Wild Dog	725	222	1,228

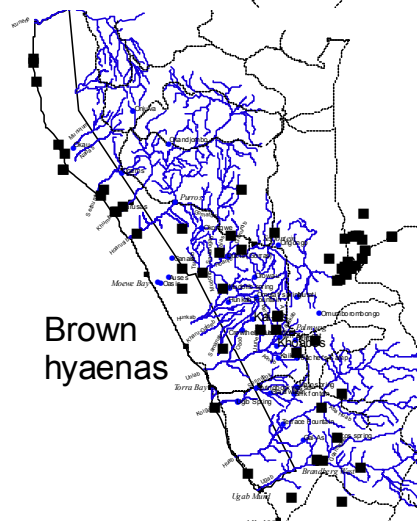
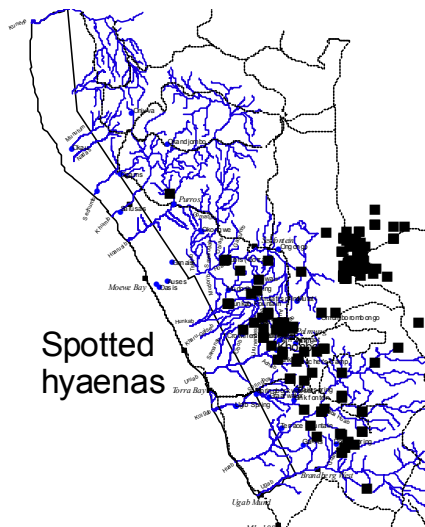
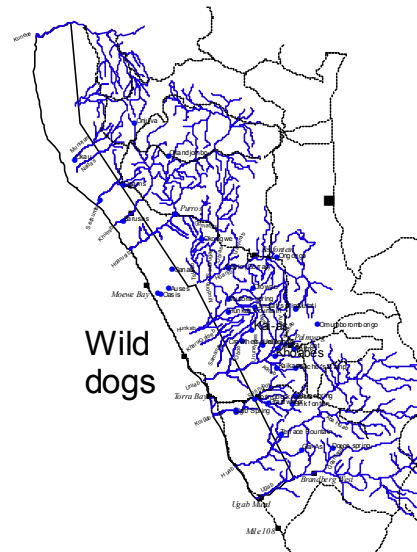
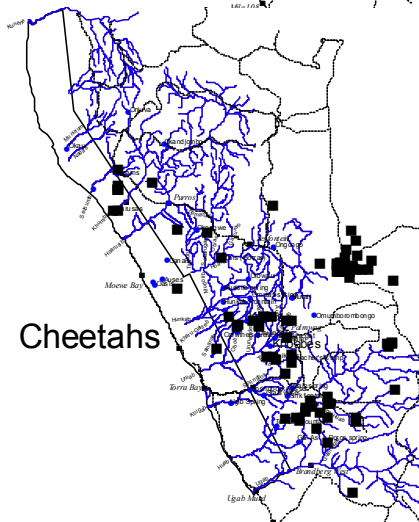
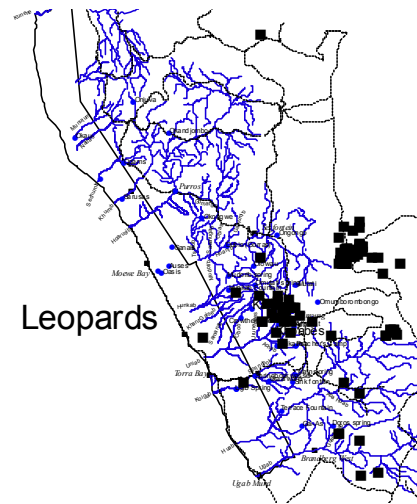
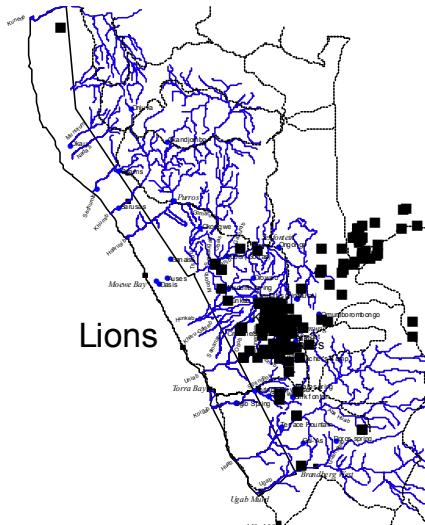


Large carnivore distribution – Tsumkwe District



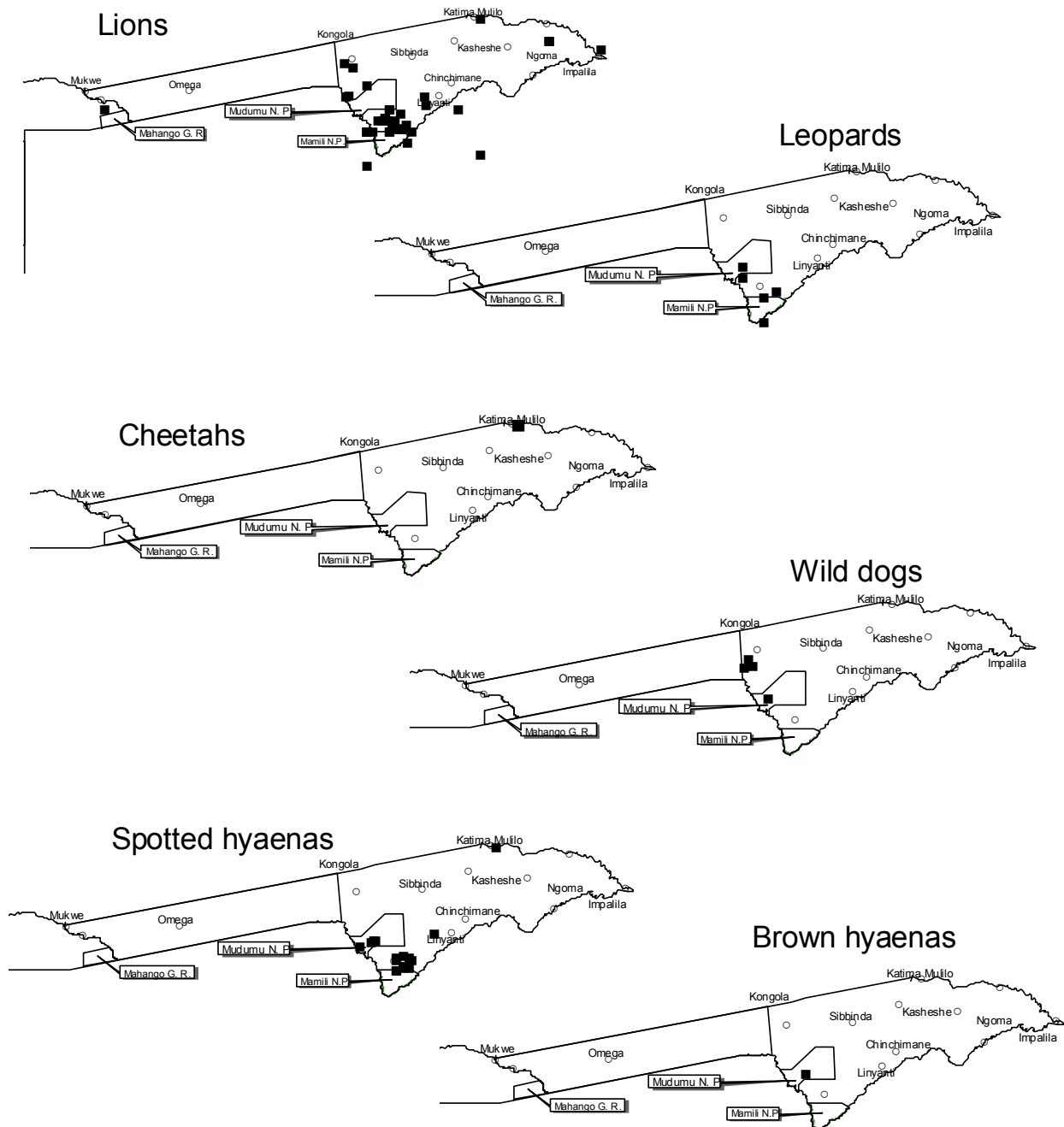


Large carnivore distribution – Kunene Region



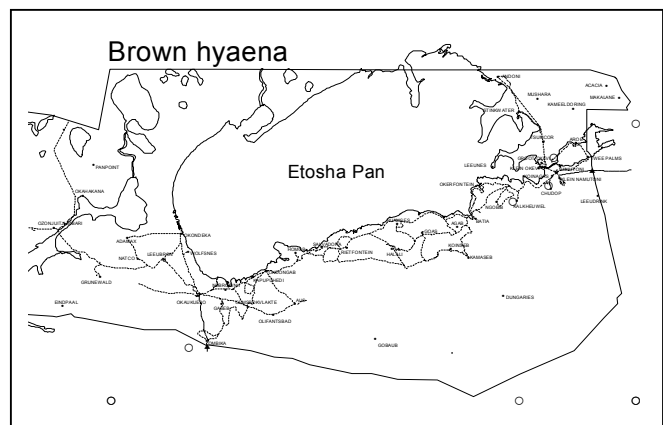
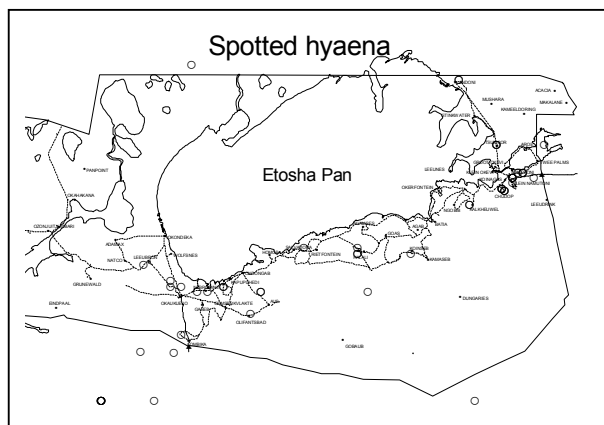
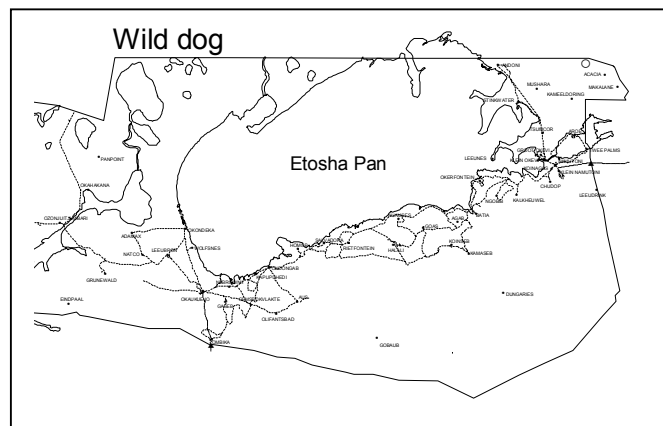
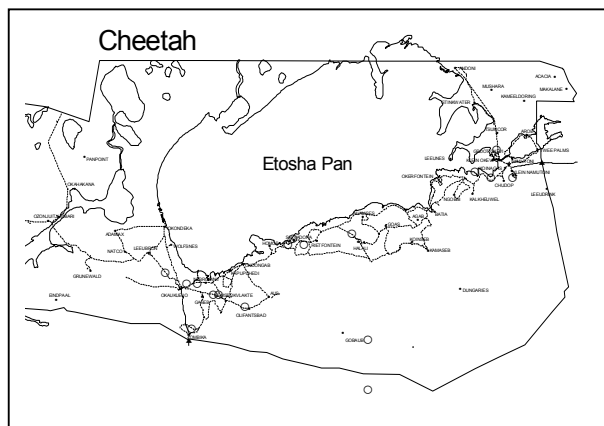
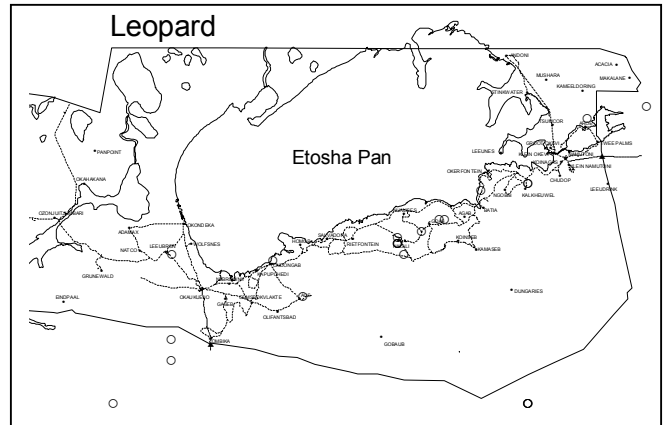
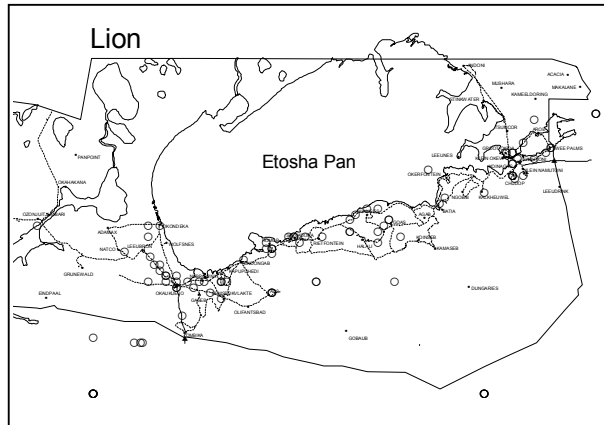


Large carnivore distribution – Caprivi Region





Large carnivore distribution – central & eastern Etosha National Park





Large carnivore distribution – western Etosha National Park & Hobatere Lodge

