Online Supplementary Material

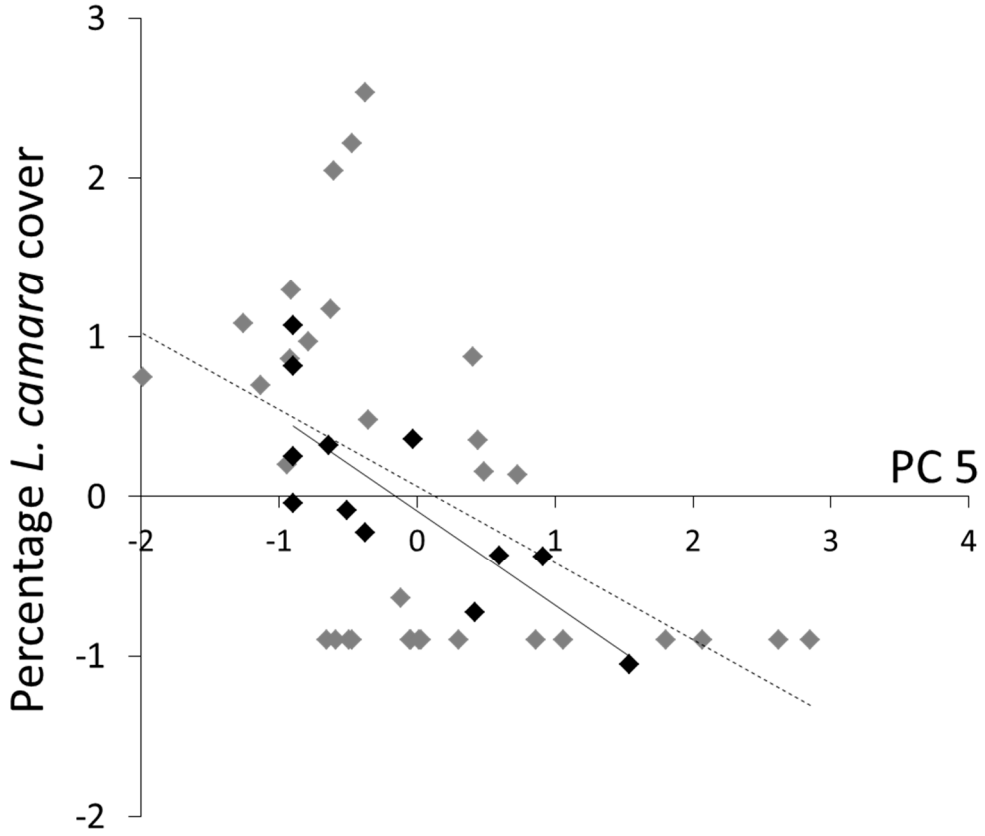

Figure S1. Visualization of the interaction effect of PC3 × PC5 on relative canopy cover of *L. camara.* Decreasing cover of *L. camara* (arcsine sqrt and afterwards *z*-transformed values) along PC5 becomes evident for both cohorts of data when splitting the data by the median of PC3 (dashed line: PC3 > median; solid line: PC3 < median).

Table S1. Details of DISTANCE analysis of seasonal cattle and sheep/goat densities in 44 sampled quadrants. Given are best fitting models including key functions, series expansion, Akaike Information Criteria (AIC), χ^2, Effective Strip Width (ESW), as well as numbers of detections (*N*), mean cluster size ($\hat{Y}$), density of individuals (D), standard error of density (D(SE)), percent coefficient of variation (V%), 95% confidence interval (CI 95%), and the density of clusters (D_g).

Quad.	model	AIC	χ^2	ESW	species	season	*N*	$\hat{Y}$	D	D (SE)	V%	CI 95%	D_g
C3d	Halfnorm.-cosine	33	0.3	53	cattle	dry	7	12.1	171.9	101.8	59.2	48-616	9.3
						wet	9	18.0	316.9	218.8	69.0	78-1282	12.0
					sheep/goat	dry	5	8.8	717.0	538.7	751	24-591	6.7
						wet	4	6.2	99.4	106.0	106.7	11-915	5.3
D3c	Halfnorm.-cosine	31.2	0.52	68	cattle	dry	5	14.4	20.3	13.7	67.6	5-83	7.3
						wet	7	17.4	71.1	50.9	71.6	18-283	3.1
					sheep/goat	dry	3	15.3	379.7	1074.0	282.9	0-98	3.1
						wet	1	0.0	1.1	1.0	98.3	0-8	1.1
D3d	Halfnorm.-cosine	40.7	0.34	20	cattle	dry	10	0.0	33.7	10.7	52.4	11-117	35.7
						wet	5	0.0	17.8	10.9	61.2	5-71	17.8
					sheep/goat	dry	1	0.0	3.6	3.5	97.5	0.4-26	3.6
						wet	2	0.0	7.1	4.2	59.2	2-77	7.2
E3c	Halfnorm.-cosine	31.2	0.22	104	cattle	dry	8	13.6	84.8	61.8	72.9	21-344	5.5
						wet	4	11.5	52.1	33.8	64.9	14-196	2.8
					sheep/goat	dry	2	8.5	11.7	12.6	107	0.8-161	73
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0

E3d	Uniform-cosine	26.4	0.47	200	cattle	dry	3	16.3	17.5	12.6	72.2	3-89	1.1
						wet	8	16.3	46.5	24.2	52.1	15-146	2.9
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	0	0	0.7	0.7	95.8	0-6	0.36
F3c	Uniform-cosine	26.4	0.47	120	cattle	dry	5	7.4	22.0	137.0	62.4	6-83	3.0
						wet	4	8.0	19.1	11.3	59.2	5-68	2.4
					sheep/goat	dry	0	0.0	9.5	5.1	53.2	2.9-31	1.8
						wet	3	5.3	0.0	0.0	0.0	0.0	0.0
F3d	Uniform-cosine	22.0	0.90	200	cattle	dry	3	12.7	13.6	14.9	110.2	2-112	1.1
						wet	6	15.7	33.6	22.1	65.7	8-138	2.1
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	1	0	2.1	2	95.8	0.3-17	0.36
G3c	Uniform-simple	39.5	0.47	99	cattle	dry	6	17.2	150	99.4	66.3	39-572	4.3
						wet	7	16.4	40.0	24.9	62.3	10-156	5.1
					sheep/goat	dry	2	16	23.1	21.1	91.4	3-178	1.4
						wet	3	19.3	142.7	201.1	140.9	0-178	2.2
G3d	Uniform-cosine	27.6	1.00	101	cattle	dry	7	15.6	167.1	106.6	63.8	45-627	4.9
						wet	6	12.0	23.6	16.2	56.8	8-165	4.2
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	2	16.0	22.5	13.0	57.6	6-86	1.4
H3c	Uniform-cosine	8.8	0.78	80	cattle	dry	1	0.0	8.0	9.0	112.3	0.81-82	0.9
						wet	2	5.0	8.9	8.2	92.2	1-78	1.8
					sheep/goat	dry	1	0.0	7.1	8.0	112.2	0.7-73	1.8
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
B5c	Halfnorm.-cosine	79.3	0.19	174	cattle	dry	15	17.1	112.0	65.2	58.1	30-415	6.2
						wet	21	12.3	101.5	59.2	58.8	30-348	8.6
					sheep/goat	dry	2	19.8	43.4	57.8	133.2	24-788	1.6
						wet	4	16.0	35.9	31.0	86.6	5.4-238	1.6
B5d	Uniform-cosine	36.0	0.84	100	cattle	dry	9	10.6	98.1	58.8	59.9	27-354	6.4
						wet	9	6.9	32.6	19.5	59.7	10-111	6.4
					sheep/goat	dry	2	0.0	1.4	1.4	96.3	0-11	0.7
						wet	1	0.0	4.3	3.0	70.6	1-22	1.4
C5c	Halfnorm.-cosine	44.9	0.33	101	cattle	dry	12	24.3	241.2	176.2	73.0	55-508	8.5
						wet	16	10.4	105.2	60.5	57.5	31-352	11.4
					sheep/goat	dry	2	0.0	5.7	5.5	96.7	0.7-44	1.4
						wet	8	2.9	16.9	10.9	64.7	4-69	5.7
C5d	Uniform-cosine	36.9	0.75	125	cattle	dry	7	6.9	35.2	28.9	82.3	7-174	4
						wet	11	6.6	66.7	34.7	52.0	21-212	6.3
					sheep/goat	dry	3	4.0	11.6	12.3	106.2	0-343	1.7
						wet	1	0.0	0.6	0.5	96.2	0-4.5	0.6
D5c	Halfnorm.-cosine	38.7	0.36	103	cattle	dry	15	8.5	104.8	57.7	55.1	30-363	10.3
						wet	13	8.2	88.8	58.0	65.3	23-345	8.9
					sheep/goat	dry	1	0.0	3.5	3.9	113.2	0-34	0.7
						wet	2	0.0	1.4	0.8	58.2	0-5	1.4
D5d	Halfnorm.-cosine	21.9	0.68	139	cattle	dry	7	12.3	70.9	61.5	86.7	13-371	3.6
						wet	5	14.2	28.6	25.5	89.1	5-162	2.6
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
E5c	Uniform-simple	33.9	0.95	110	cattle	dry	8	12.9	117.8	104.1	88.4	22-632	5.2
						wet	6	27.5	296.5	246.3	119.3	20-2116	3.9
					sheep/goat	dry	1	0.0	1.9	1.8	96.5	0-15	0.6
						wet	4	15.3	123.2	148.6	120.6	9-1674	2.6
E5d	Uniform-	43.7	0.45	122	cattle	dry	10	14.2	113.4	62.5	55.1	34-384	5.8

	simple												
						wet	8	12.0	57.1	34.5	60.4	16-201	4.7
					sheep/goat	dry	1	0.0	1.7	2.0	113.0	0-18	0.6
						wet	3	10.0	3.2	3.1	97.1	0-26	1.8
F5c	Uniform-simple	37.1	0.54	126	cattle	dry	7	11.7	60.9	46.2	75.7	14-271	3.9
						wet	9	13.6	77.4	48.4	62.4	21-282	5.1
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	2	2.5	2.8	1.7	67.5	0-1.1	1.1
F5d	Uniform-cosine	61.1	0.35	114	cattle	dry	10	11.7	84.3	49.6	59.8	24-290	6.3
						wet	9	13.6	76.8	45.4	59.2	23-262	5.6
					sheep/goat	dry	5	7.4	21.6	18.4	85.1	4 - 118	3.1
						wet	4	4.3	34.1	42.4	124.1	2 - 487	2.5
G5c	Uniform-cosine	48.3.	0.42	150	cattle	dry	10	13.0	61.9	41.5	67.0	14-277	4.8
						wet	7	14.1	47.1	35.6	75.4	9 - 247	3.3
					sheep/goat	dry	1	0.0	6.2	5.9	95.8	0.7-49	0.5
						wet	4	21.8	41.4	33.6	81.0	7.5-229	1.9
G5d	Uniform-cosine	24.2	0.53	200	cattle	dry	3	19.7	21.1	15.6	73.8	4 -107	1.1
						wet	5	26.2	46.8	26.0	55.6	14-154	1.7
					sheep/goat	dry	1	0.0	18.9	18.1	95.8	2-151	0.4
						wet	2	9.5	6.8	5.7	84.5	1-44	0.7
H5c	Uniform-cosine	25.0	0.74	200	cattle	dry	4	13.0	18.6	10.9	58.8	5-74	1.4
						wet	4	8.0	11.4	7.9	69.0	2-56	1.4
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	1	0.0	2.5	2.4	95.8	0-20	0.4
H5d	Halfnorm.-cosine	17.7	0.54	112	cattle	dry	3	11.3	39.7	40.6	102.4	5-305	1.9
						wet	1	0.0	13.9	13.9	99.9	2-108	0.6
					sheep/goat	dry	2	11.0	13.9	14.4	103.3	0.3-313	1.3
						wet	3	11.7	12.5	12.4	107.7	0-418	1.7
I5c	Halfnorm.-cosine	22.3	0.08	44	cattle	dry	3	33.3	246.9	215.9	87.4	40-1508	4.9
						wet	5	15.2	147.7	115.0	77.9	32-286	8.2
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	3	3.7	26.8	25.8	96.3	2.4-304	4.9
B9a	Uniform-cosine	15.4	0.87	40	cattle	dry	1	0.0	1.8	1.7	95.8	0-14	1.8
						wet	1	0.0	12.5	11.9	95.8	2-99	1.8
					sheep/goat	dry	2	5.0	17.9	10.7	59.9	5-70	3.6
						wet	3	2.3	12.5	10.7	96.9	2-99	5.4
B9b	Halfnorm.-cosine	19.3	0.11	16	cattle	dry	3	0.0	13.2	13.0	99.1	1 - 102	13.2
						wet	1	0.0	8.8	8.7	99.1	1-68	4.4
					sheep/goat	dry	5	2.6	33.2	25.9	78.0	7-155	21.9
						wet	1	0.0	30.8	35.4	115.1	4-306	4.4
C9a	Uniform-cosine	11.0	0.82	16	cattle	dry	2	3.5	31.3	22.1	70.6	6-167	8.9
						wet	2	3.5	31.3	25.6	82.1	5-187	8.9
					sheep/goat	dry	1	0.0	35.7	34.2	95.8	5-284	4.5
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
C9b	Uniform-cosine	8.8	0.78	25	cattle	dry	1	0.0	8.5	9.6	112.3	1-87	2.9
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
					sheep/goat	dry	2	6.0	34.3	33.4	97.3	4-270	5.7
						wet	1	0.0	14.3	16.0	112.3	1-145	2.9
D9a	Halfnorm.-cosine				cattle	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
D9b	Uniform-cosine	26.4	0.47	180	cattle	dry	3	24.3	29.0	24.3	84.0	5-163	1.2

						wet	6	9.0	21.4	13.4	62.5	6-78	2.4
					sheep/goat	dry	0	0.0	0.0	0.0	0.0	0.0	0.0
						wet	3	6.3	7.5	5.19	77.7	1.5-39	1.2
E9a	Uniform-cosine	35.2	0.65	200	cattle	dry	7	17.9	44.6	31.9	71.5	8-205	2.5
						wet	6	17.9	38.2	25.5	66.6	9-162	2.1
					sheep/goat	dry	2	0.0	5.7	5.5	95.8	0.7-46	0.7
						wet	1	0.0	3.2	3.1	95.8	0-26	0.4
E9b	Halfnorm.-cosine	34.1	0.41	124	cattle	dry	4	9.5	23.5	24.5	104.7	3-189	20.0
						wet	9	6.0	15.3	9.7	63.6	4-55	4.5
					sheep/goat	dry	1	0.0	1.5	1.7	114.9	0-15	0.5
						wet	2	3.0	3.0	2.8	93.0	0-32	1.0
F9a	Uniform-cosine	37.4	0.39	200	cattle	dry	4	11.0	15.7	11.9	76.0	3-86	1.4
						wet	5	14.0	25.0	15.1	60.5	6-100	1.8
					sheep/goat	dry	4	5.0	7.1	5.3	74.1	1.5-35	1.4
						wet	4	5.0	7.1	4.8	66.7	2-29	1.4
F9b	Halfnorm.-simple	29.3	0.01	60	cattle	dry	6	10.0	66.3	43.1	65.0	17-258	7.1
						wet	10	7.9	70.7	32.8	56.2	20-240	11.8
					sheep/goat	dry	2	3.0	7.1	4.8	68.1	2-31	2.4
						wet	1	0.0	7.1	6.9	97.6	1-56	1.2
G9a	Halfnorm.-cosine	45.8	0.78	67	cattle	dry	7	10.9	120.6	115.7	96.0	20-717	7.4
						wet	8	6.3	62.9	46.0	73.2	15-271	8.5
					sheep/goat	dry	2	0.0	4.3	4.2	97.6	0.5-33	2.1
						wet	6	8.2	27.4	25.7	93.8	45-167	6.4
G9b	Halfnorm.-simple	22.5	0.20	31	cattle	dry	6	12.0	134.5	150.8	112.2	17-1064	13.9
						wet	3	6.7	40.3	59.9	148.5	1-1409	6.9
					sheep/goat	dry	3	2.7	159.1	2856	179.5	0-9800	6.9
						wet	3	3.0	17.9	13.2	73.5	4-85	6.9
H9a	Uniform-cosine	54.9	0.23	140	cattle	dry	11	12.5	69.9	42.1	60.3	18-269	5.6
						wet	9	13.2	60.7	37.2	61.2	17-235	4.6
					sheep/goat	dry	2	8.5	8.7	5.5	63.6	2-36	1.0
						wet	3	7.7	11.7	7.6	64.9	3-51	1.5
H9b	Uniform-simple	26.6	0.87	68	cattle	dry	4	27.5	965.4	1221.1	198.9	12-8011	4.2
						wet	7	29.5	305.7	327.9	107.3	42-2224	7.3
					sheep/goat	dry	3	8.0	74.0	104.9	141.7	0-18310	3.1
						wet	0	0.0	0.0	0.0	0.0	0.0	0.0
I9a	Uniform-cosine	24.2	0.91	130	cattle	dry	5	28.2	77.4	54.4	70.2	18-326	2.7
						wet	3	47.3	78.0	59.9	76.8	15-392	1.6
					sheep/goat	dry	2	12.0	13.2	12.8	97.3	1-103	1.1
						wet	1	0.0	3.3	3.1	95.8	0-26	0.5

Questionnaire 1

Semi-structured questionnaire with questions asked to the respondents regarding the persistence and abundance of wildlife in the Mutara rangelands. Note that only the answers to questions 4 were analysed in this study

Questionnaire

(The interviewees will be asked the following questions strictly in the given order)

1. At first we will request the interviewees to provide information on **age, education level, gender, occupation** (what do you do on this land)**, origin *(local or stranger)*.**
2. What wildlife species do you see (hear)?

Silhouettes will be presented to the interviewee

3. When did you last encounter that species on your land?
4. How often do you see that species?
5. Does this wild animal cause any damage?
6. What damage?
7. If crop is raided: What crop/livestock is raided?
8. How do you estimate the damage in % of expected yield?
9. Can you tolerate the species to be with your livestock/on your land?
10. Do you try to repel the wild animal?
11. In what habitat do you encounter this wild animal (garden, cattle ranch, riverine forest, bush and tickets)