

GAME COUNTS IN EAST ZAMBEZI

The fundamental purpose of game counts in communal areas is to inform conservancies and MEFT of wildlife trends for the purposes of adaptive management of resources. While estimates for some species are provided, these should only be considered as an approximate guide to species abundance.

Dry season - Live sightings

October 2021

Numbers seen (transects):

Area	1 Balyerwa	2 Bamunu	3 Dzoti	4 Kwandu	5 Mashhi	6 Mayuni	7 Mudumu	8 Nkasa Rupara	9 Salambala	10 Sikunga	11 Sobbe	12 Wuparo
Total km	97	113	114	104	95	79	384	157	208	56	104	67
No. of routes	12	9	12	11	9	6	24	4	16	4	10	5

Species	1 Balyerwa	2 Bamunu	3 Dzoti	4 Kwandu	5 Mashhi	6 Mayuni	7 Mudumu	8 Nkasa Rupara	9 Salambala	10 Sikunga	11 Sobbe	12 Wuparo
Baboon							37	57				
Buffalo			88		20		70	2				
Bushbuck												
Bushpig												
Crocodile			1	1			1				1	
Duiker	6	1	7	6	7	1	51	1	12	4	10	4
Eland				3	1		45	6	1		10	
Elephant			23		5		484	254				
Giraffe					3	7	30		10	4		
Hippo							3	19				
Hyaena												
Impala	72	1	46	10	3		315	929	155			
Jackal			1			1		3				1
Kudu	1	4	5		1	10	36	16	14			
Lechwe					19	25	18	251				
Leopard								1				
Lion							1	12				
Ostrich												
Reedbuck	2	6	3		2		7	20				2
Roan			9		10		90				5	
Sable			17		11		13					
Steenbok					2	1	13					
Tsessebe								1				
V. Monkey							24	7				
Warthog	4		5	2			33	464	3		7	
Waterbuck					2							
Wild dog							17		2			2
Wildebeest		6			2		156	13	137			
Zebra B.	12	1524			10		484	46	647			

Mudumu and Nkasa Rupara (outlined in red) are National Parks, the remainder are conservancies



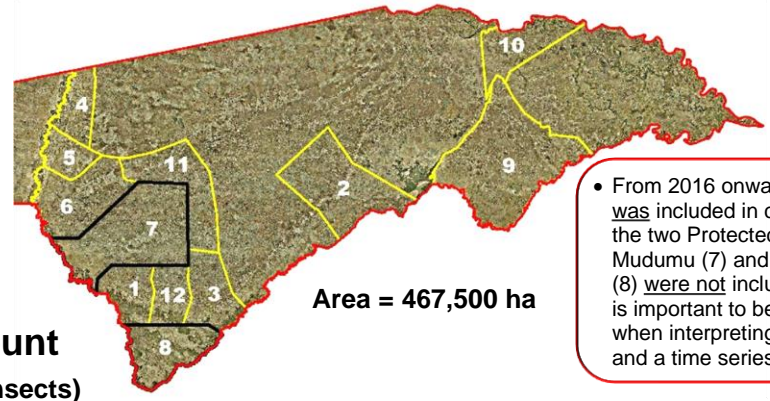
Estimates

Estimates were calculated for the current year using DISTANCE. In most cases at least the last 5 years of data were used in analysis to generate a detection profile for each species. Several conservancies have been grouped due to the low numbers of animals recorded. The bottom row of the table (hyphenated) numbers = 95% Confidence Intervals. In Sikunga, very few sightings have ever been recorded (59 for all species since 2011) and no sensible estimates for any species can be derived for this area. With Zebra and Buffalo DISTANCE is not an appropriate method to use when the number of sightings is low. These animals are usually found in large herds and these sightings at least provide some guide to abundance.

Species	Kwandu Mayuni Mashi Sobbe	Balyerwa Dzoti Wuparo	Mudumu	Nkasa Rupara	Bamunu	Salambala	Sikunga
Buffalo	20	88	70	2	0	0	0
Duiker	794 462-1363	224 138-362	2,055 1054-4005	*	*	160 33-779	*
Elephant	*	106 35-320	3,044 1655-5981	1,756 538-5736	*	*	*
Giraffe	*	*	145 80-262	0	*	111 36-347	*
Impala	*	793 283-2224	4,702 1655-13354	9,122 2286-36402	*	2,358 1111-5005	*
Kudu	154 42-569	77 26-226	306 114-822	202 32-1266	*	257 71-933	*
Lechwe	404	0	83	1,255 294-5367	0	*	0
Roan	145 55-382	38 13-111	591 285-1228	0	*	0	0
Sable	*	*	517 148-1799	0	0	*	0
Steenbok	*	*	115 27-489	*	0	*	0
Warthog	142 46-438	93 35-245	847 405-1770	7,906 2313-27029	*	113 35-366	*
Wildebeest	*	*	1,171 332-4125	*	*	1,111 331-3727	*
Zebra	12	10	3,904 1900-8020	46	1,524	647	

In red: DISTANCE analysis is not appropriate for herd species with low numbers of sightings. Values in red indicate the numbers seen for these species. For lechwe these are numbers seen in the river count.

* = too few observations to provide estimates of numbers but animals have been recorded here
0 = no animals seen in counts



Area = 467,500 ha

From 2016 onwards Bamunu (2) was included in counts. In 2018 the two Protected Areas Mudumu (7) and Nkasa Rupara (8) were not included in counts. It is important to bear this in mind when interpreting tables, charts and a time series of posters.

Last 3 Count Years (transects)

Species	Animals Seen		
	2021	2020	2019
Baboon	94	181	93
Buffalo	180	602	447
Bushbuck	0	1	4
Bushpig	0	0	0
Crocodile	4	2	2
Duiker	110	91	87
Eland	66	7	21
Elephant	766	1,120	1,118
Giraffe	54	35	51
Hippo	22	41	56
Hyaena	0	2	0
Impala	1,531	1,447	1,651
Jackal	6	13	8
Kudu	87	189	94
Lechwe	313	462	386
Leopard	1	1	2
Lion	13	0	1
Ostrich	0	1	1
Reedbuck	42	45	48
Roan	114	118	84
Sable	41	57	7
Steenbok	16	19	16
Tsessebe	1	7	5
V. Monkey	31	0	28
Warthog	518	669	628
Waterbuck	2	92	21
Wild dog	21	1	0
Wildebeest	314	301	321
Zebra B.	2,723	1,298	1,535

Species	Groups		
	2021	2020	2019
Baboon	5	9	8
Buffalo	8	7	11
Bushbuck	0	1	2
Bushpig	0	0	0
Crocodile	4	2	1
Duiker	101	84	75
Eland	11	4	5
Elephant	61	53	124
Giraffe	17	13	14
Hippo	7	9	17
Hyaena	0	1	0
Impala	152	139	115
Jackal	5	8	6
Kudu	23	46	34
Lechwe	46	33	25
Leopard	1	1	1
Lion	3	0	1
Ostrich	0	1	1
Reedbuck	19	22	21
Roan	35	35	27
Sable	12	11	5
Steenbok	13	18	12
Tsessebe	1	1	1
V. Monkey	3	0	3
Warthog	176	209	183
Waterbuck	1	9	3
Wild dog	4	1	0
Wildebeest	19	13	19
Zebra B.	84	66	62

River Count

River km	Kwandu	Mayuni	Mashi	Mudumu
	35	22	41	55

Species	Kwandu	Mayuni	Mashi	Mudumu
Buffalo				56
Elephant	1	10		42
Impala				107
Crocodile	1	6	4	5
Hippo	10	30	153	129
Lechwe	3	217	184	83
Sitatunga		9	3	
Waterbuck			1	3
Baboon		7		43
Kudu		3		2
Vervet Monkey				1
Warthog				4
Wildebeest			2	

In addition to transect counts, a boat count was undertaken along the Kwando River from Kwandu conservancy to the southern border of Mudumu National Park. This provides important extra data on wetland species such as red lechwe and hippo.

Trends: Bars = numbers per 100km (left axis); line = monthly patrol sighting index

Do monthly patrol trends mirror annual count trends in conservancies?

