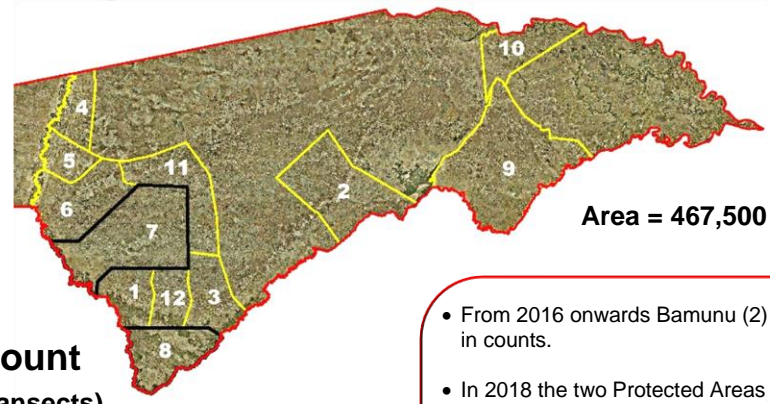# GAME COUNTS IN EAST ZAMBEZI

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
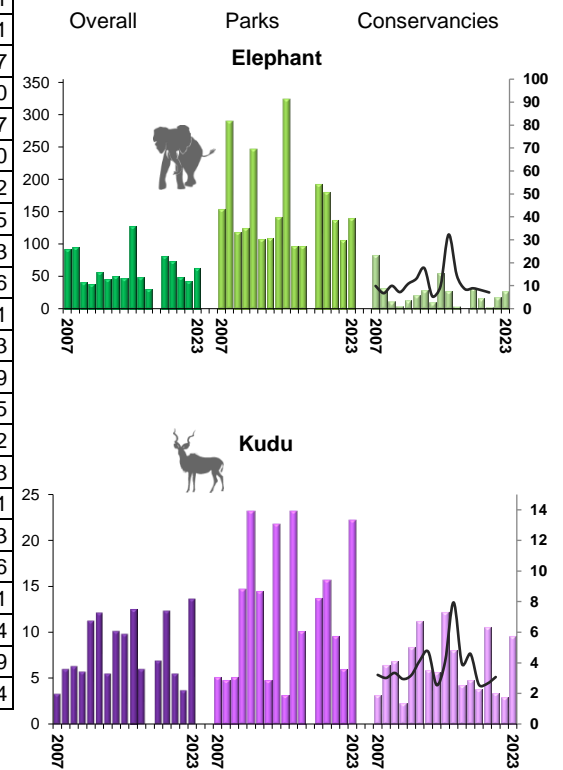### August 2023

Area = 467,500 ha

Numbers seen (transects):

Area / Species	1 Balyerwa	2 Bamunu	3 Dzoti	4 Kwandu	5 Mashi	6 Mayuni	7 Mudumu	8 Nkasa Rupara	9 Salambala	10 Sikunga	11 Sobbe	12 Wuparo
Total km	105	118	124	98	105	80	360	155	190	67	106	61
No. of routes	12	9	12	11	9	6	24	4	14	4	10	5
Baboon							48	115				10
Buffalo	65		46		1		130	50				416
Bushbuck		1			1			1				
Bushpig				4								
Cheetah												
Crocodile												
Duiker	4	1	17	10	4	4	33		4	2	6	3
Eland			6			20	125		26		25	
Elephant	25	7	40	4	83		496	134	31	64	5	3
Giraffe					16	2	9		4			7
Hartebeest							2					
Hippo	1				29	5	23	34				
Hyaena							1					
Impala	153	2	62	11	33	4	294	1,478	53	32	8	195
Jackal	2						3	5	3			
Kudu	7	8	6	7	35	9	37	63	10			11
Lechwe				81	46	200	32	644				
Leopard							1	2				
Lion							2					
Reedbuck	1	5		3		2		28				3
Roan	10		25		19		84				17	
Sable	12						17					
Steenbok		1		1	1		6					
Tsessebe												
V. Monkey												
Warthog	4	1		4			23	586	22			78
Waterbuck	8						1	10				24
Wild dog												
Wildebeest	80			122			34	52	8	1	7	
Zebra B.		2,145	9	33			247	46	148			27

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

Last 3 Count Years (transects)

Species	Animals Seen 2023	2022	2021	Groups Seen 2023	2022	2021
Baboon	173	46	94	8	4	5
Buffalo	708	296	180	11	4	8
Bushbuck	3	0	0	3	0	0
Bushpig	4	6	0	1	1	0
Cheetah		2	0		1	0
Crocodile	0	2	4	0	2	4
Duiker	88	62	110	76	58	101
Eland	202	92	66	14	8	11
Elephant	892	581	766	93	21	61
Giraffe	38	53	54	14	17	17
Hartebeest	2	0	0	1	0	0
Hippo	92	8	22	7	2	7
Hyaena	1	1	0	1	1	0
Impala	2,325	327	1,531	139	27	152
Jackal	13	2	6	8	2	5
Kudu	193	51	87	38	12	23
Lechwe	1,003	51	313	36	8	46
Leopard	3	0	1	2	0	1
Lion	2	9	13	1	3	3
Reedbuck	42	7	42	16	4	19
Roan	155	66	114	27	19	35
Sable	29	87	41	8	6	12
Steenbok	9	10	16	9	8	13
Tsessebe	0	0	1	0	0	1
V. Monkey	0	10	31	0	1	3
Warthog	718	39	518	143	13	176
Waterbuck	43	2	2	8	1	1
Wild dog	0	0	21	0	0	4
Wildebeest	304	160	314	17	14	19
Zebra B.	2,655	1,843	2,723	71	73	84

- 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.
- In 2022 Nkasa Rupara (8) was not counted due to inundation.
- It is important to bear this in mind when interpreting tables, charts and a time series of posters.

Trends:

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

Overall | Parks | Conservancies

Elephant

Kudu

Impala

Zebra

Buffalo

Duiker

Wildebeest

Roan

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 (60 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.

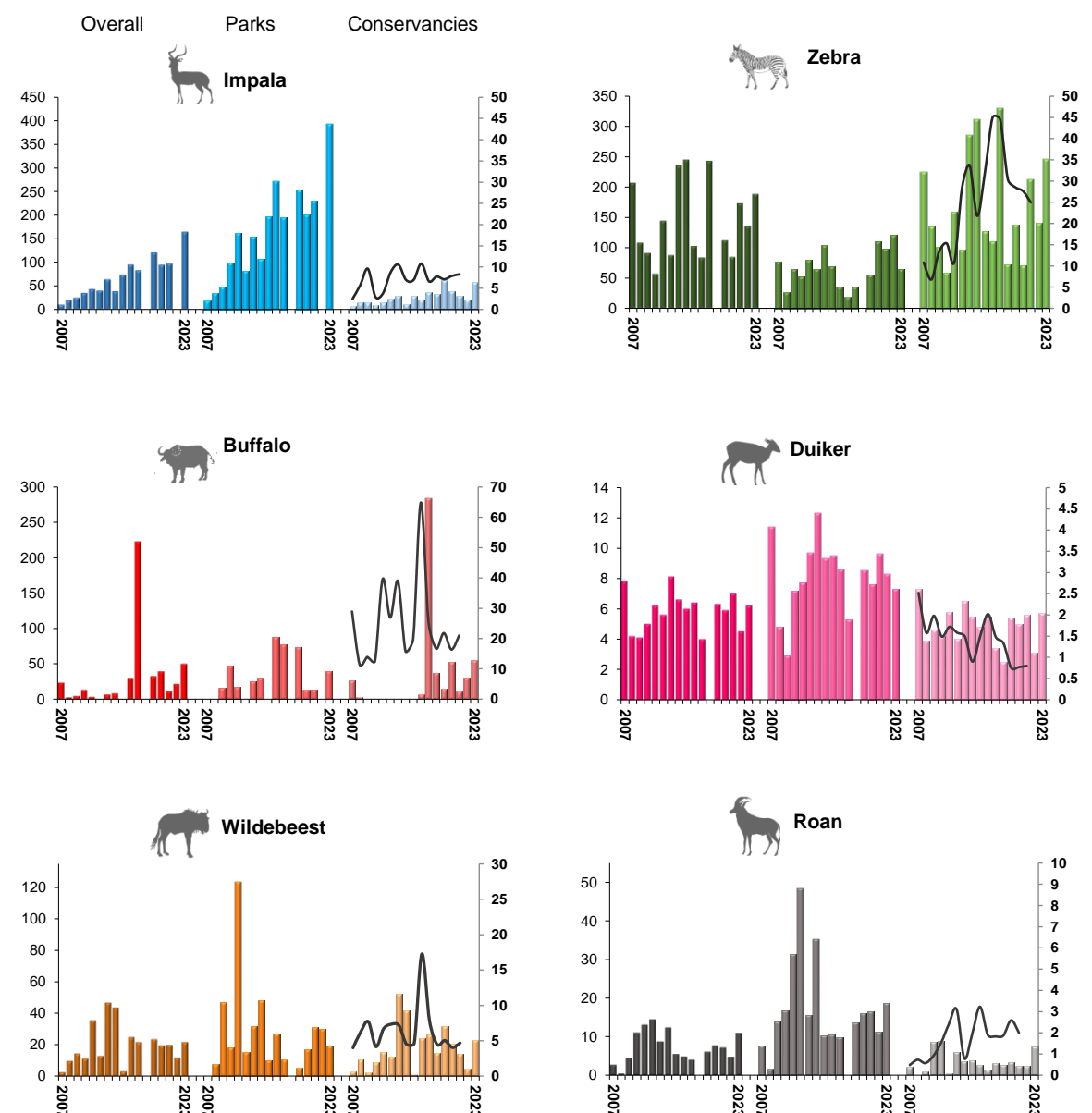| Species	Kwandu Mayuni Mashi Sobbe	Balyerwa Dzoti Wuparo	Mudumu	Nkasa Rupara	Bamunu	Salambala	Sikunga
Buffalo	1 / 16	527	130 / 211	50	*(5)	0	0
Duiker	650 / 395-1,067	384 / 223-671	1,203 / 675-2,143	*(4)	*(13)	98 / 25-390	*(12)
Elephant	481 / 207-1,117	334 / 142-785	4,557 / 2,279-9,115	695 / 228-2,113	*(7)	*	*(14)
Giraffe	327 / 132-809	*	100 / 27-363	0	*(1)	52 / 9-293	*(9)
Impala	1,067 / 447-2,544	2,210 / 1,035-4,722	206 / 70-605	16,174 / 5,535-47,260	*(3)	600 / 255-1,414	*(8)
Kudu	496 / 131-1,884	203 / 91-454	266 / 63-1,129	869 / 244-3,093	*(6)	238 / 59-955	*(7)
Lechwe	327 / 1,139	0	32 / 177	644 / *	0	*(1)	0
Roan	271 / 96-765	83 / 30-234	1,036 / 358-2,997	0	*(1)	0	0
Sable	*	*	423 / 134-1,341	0	0	0	0
Steenbok	55 / 10-292	*	123 / 47-323	0	*(1)	0	0
Warthog	54 / 10-292	477 / 198-1147	212 / 63-714	7,350 / 2,770-19,561	*(16)	450 / 196-1,035	*(5)
Wildebeest	*	*	256 / 35-1875	*(7)	*(4)	607 / 169-2,174	*(6)
Zebra	50	9	247	46	2,145	148	0

DISTANCE analysis is not appropriate for herd species with low numbers of sightings.
In red: numbers <u>seen</u> in transects.
In blue: numbers <u>seen</u> in the river count.

*(5) = not counted, or too few, or zero, observations to derive estimates- but animals have been recorded. Where there is a value in brackets it indicates the total sightings of that species since counts began.

0 = no animals seen in counts

Impala in Nkasa Rupara account for around half of the total animals normally seen. Consequently, trend values for the two parks and overall, in 2022 are not included in that chart.