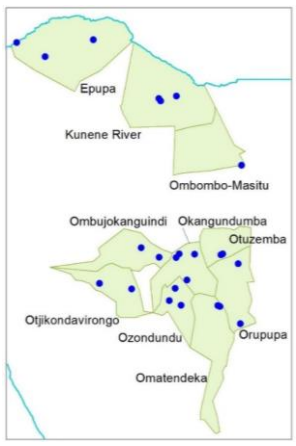
FULL MOON WATERHOLE COUNTS IN NORTHERN KUNENE 2022

Primary count focus:

To derive estimates for two species:
Elephant
Black-faced impala

These species are not well represented in vehicle transect counts.



Animals seen

	Kunene River	Okombine	Ombahu	Otjitambi	Okangundumba	Epunguwe	Okahua	Omao	Omunuandjai	Otjite	Ombujokanguindi	Okapangekua	Ozondundu	Okarumbu	Okomuhana	Otjomatemba	Otuzemba	Okarindi Kamutat	Okatuzembona	Omukungu	Otjikongo	Omatendeka	Okavantje	Okondundu	Otjomumbonde	Otjikondavirongo	Okozondjupa	Otjitjeue	Otjambangu	Otjiuore	Orupupa	Okaturukira	Otjondeka	Ombombo Masitu	Ombombo	Epupa	Etambue	Otjomazeva	Otjimborombonga	Total
Count days		3	3	3		3	3	3	3	3		3		3	3	3		3	3	3	3		3	3	3		3	3		3		3	3		3		3	3	3	
Baboon												67			474				33				170	63			8			117		79	7							1018
Black-faced impala		167	132	34								58			1				218	14	105		6	37	18			5				80	19				144	9	7	1054
Cheetah																			6											2										8
Dik Dik												11											1				3	3									3			21
Duiker		6	1	2								2												2				1				2					4		1	21
Eland															11			16			5				96								1							129
Elephant						8	165	5	115	30				21					15	3	17				32								54		61					526
Gemsbok																				3			4		66					21										94
Giraffe		4	1																1						170								2							178
Hyaena															2						3		1		11								1							18
Jackal		4				2				7										1	3				23					3					1					44
Klipspringer												2											13	12			1					6	13							47
Kudu		8	40									40			62				112	53	1			21	25		8			69		47	88		7				8	589
Leopard															1								2	1	1															5
Lion																									3															3
Ostrich						9		2	2					11				2		2	2				12					30			46							118
Porcupine																														6										6
Scrub hare																		2																						2
Springbok						51		28	4	4											7				501					59										654
Steenbok		8	2												1					2				4				1				4			1					23
Vervet Monkey												56																												56
Warthog																									6								5							11
Zebra, Burchell's																			55	33	11												26							125
Zebra, Hartmann's															269				281	67	72		5	7	939					20		113	62							1835

Waterhole Estimates

Overall

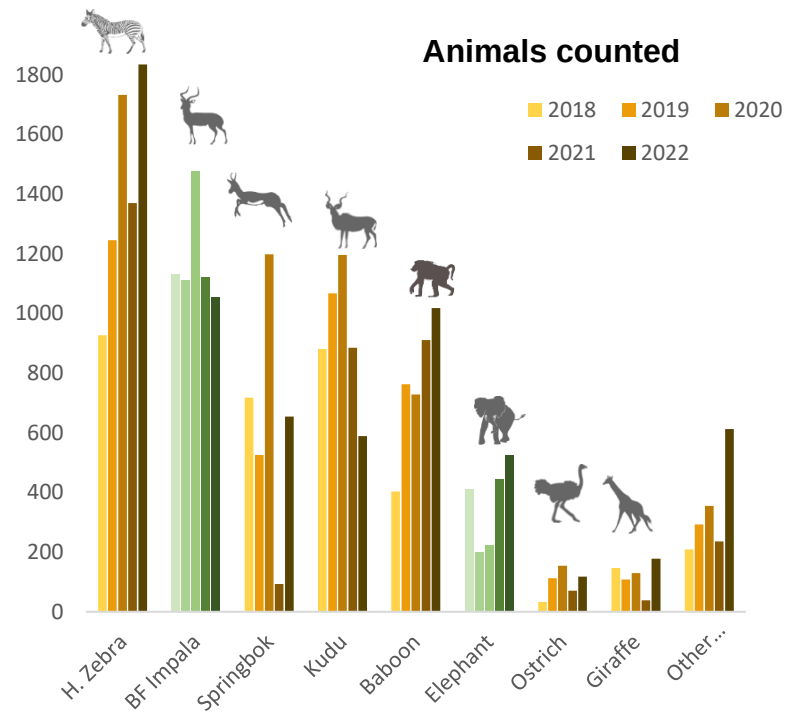
	2022	2021	2020	2019	2018
Focal Species					
Black-faced impala	**703**	748	977	740	754
Elephant	**316**	266	147	121	212
Other species					
Eland	**172**	35	46	40	45
Gemsbok	**125**	12	92	47	77
Giraffe	**237**	51	153	144	178
Kudu	**393**	591	788	712	576
Ostrich	**159**	95	219	149	40
Springbok	**871**	124	1331	701	920

North West Waterhole Counts

Counts were undertaken at waterholes in the escarpment zone of north west Namibia. In 2018,18 waterholes in 7 conservancies were counted while in 2019, 2020 and 2021, the number of waterholes was increased to around 26 covering 10 conservancies. Counts were undertaken over a period of 2, 3 or 4 days during which time all animals seen were counted.

Game species differ in the frequency with which they need to visit water resources with some able to acquire much of their hydration needs through foraging. Waterhole counts are therefore best suited to species (like elephants) which make infrequent discrete trips to specific water points.

Estimates of animals are calculated by correcting the numbers seen over the entire count period using the number of count days, and the drinking frequency of the species. They are therefore crude estimates and should be considered a guide to the relative abundance of animals in the area. Values are influenced by several assumptions including drinking frequencies and independence of sightings. Using assumed drinking frequencies of 2 days for black-faced impala and 1.8 days for elephants, we obtain the following average estimates (over the five years 2018-2022): Black-face impala 784; Elephant 212.



Waterhole Estimates

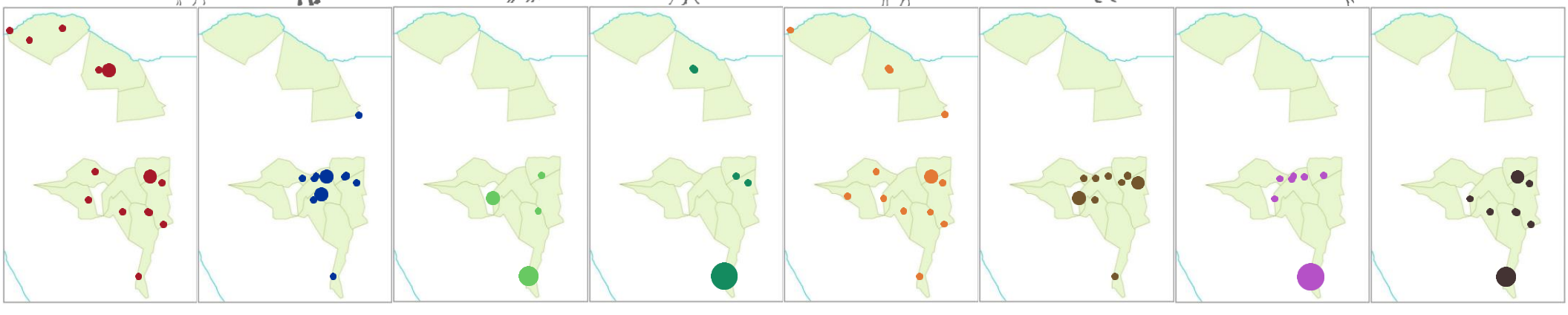
Conservancies

	DF = drinking frequency	Kunene River 2022	2021	2020	2019	2018	Ombujokanguindi 2022	2021	2020	2019	2018	Okangundumba 2022	2021	2020	2019	2018	Ozondundu 2022	2021	2020	2019	2018	Otuzemba 2022	2021	2020	2019	2018	Orupupa 2022	2021	2020	2019	2018	Omatendeka 2022	2021	2020	2019	2018	Otjikondavirongo 2022	2021	2020	2019	Otjambangu 2022	Ombombo-Masitu 2022	2021	2020	2019	Epupa 2022	2021	2020	2019
Focal Species	**DF**																																																
Black-faced impala	2	**222**	276	273	392	311	**39**	54	48	26	38						**1**					**224**	268	103	147	212	**66**	68	90	103	140	**41**	53	32	63	52	**3**	3		9						**107**	26	431	1
Elephant	1.8									27		**194**	83	45		97	**13**	2	58	47	74	**21**	58		3	34	**32**	32	34	30		**19**				7						**37**	91	9	14				
Other species																																																	
Eland	4																**15**	20	8			**28**	3		11		**1**	12	19	4		**128**		19	25	45													
Gemsbok	4																			13		**4**	12	7	7				1			**93**		84	27	77					**28**								
Giraffe	4	**6**	39	9	9					3			7									**1**					**3**			19	5	**227**		143	113	173							5						
Kudu	2	**32**	19	66	64	22	**27**	34	89	9	33				42	1	**41**	30	84	24		**111**	155	133	183	158	**90**	324	267	196	240	**31**	13	42	100	122	**5**	1	17	27	**46**	**5**	15	41	68	**5**		47	
Ostrich	4								105	95		**18**	19	18		4	**15**	40	44	5	16	**9**	19	17	12	4	**61**	17	16	20	4	**16**		18	17	12					**40**								
Springbok	4		4						252	8		**115**	97	113		101			15			**9**						23	51	21	87	**668**		887	640	733			13	32	**79**								

The number of waterholes counted each year varied in some conservancies, and in 2018 waterholes in 3 conservancies were not counted

Distribution (of a selection of species)

Numbers seen

Low → ***High***

Black-faced Impala **Elephant** **Gemsbok** **Giraffe** **Kudu** **Ostrich** **Springbok** **Zebra**