

Table xx Estimates of population size of most large mammal species, crocodile and ground hornbill for the three core wildlife areas as well as the Multiple Use Area (Grey denotes stable, red denotes decline, green denotes increase)

Species	Mahango Core Area	Buffalo Core Area	Kwando Core area	Multiple Use Area	Total	Type of census, year
Buffalo	3224(1601-4846)		249 (114-384)		3473 (1715-5230)	2015 aerial sample
	247	2300	2854		5401	2017 ground transect
Elephant	3166 (1638-4693)		2700 (1440-3959)	326 (33-649)	6192 (3111-9301)	2015 aerial sample
Roan	197 (57-337)		56 (17-100)	89 (9-190)	342 (83-627)	2015 aerial sample
Sable	619 (237-1001)		544 (332-755)	118 (12-264)	1281 (581-2020)	2015 aerial sample
Tsessebe			27 (8-61)	10 (1-29)	37 (9-90) ¹	2015 aerial sample
Giraffe	39 (8-77)		65 (20-118)	20 (2-58)	124 (48-253)	2015 aerial sample
Eland	150 (31-387)		17 (5-48)		157 (36-435)	2015 aerial sample
Hippopotamus	361 (102-620)		317 (101-533)		678 (203-1153)	2015 aerial sample
	362		164		526	2018 wetland count
Lechwe	1324 (272-2562)		903 (502-1303)		2227 (774-3865)	2015 aerial sample
	473		1066		1539	2018 wetland count
Reedbuck	203		77		280 ²	2018 wetland count
Waterbuck	104 (21-222)				104 (21-222)	2015 aerial sample
Wildebeest	79 (23-166)				79 (23-166)	2015 aerial sample
Zebra	315 (64-593)		68 (20-154)		383 (84-747)	2015 aerial sample
Warthog	248 (84-413)		67 (23-110)	79 (8-177)	394 (186-700)	2015 aerial sample
Kudu	601 (122-1198)		99 (46-152)	138 (14-304)	838 (182-1654)	2015 aerial sample
	1339 ³		1766	1061	6282	2017

¹ This estimate is significantly down from the 2013 estimate of 274 (2013 aerial sample survey)

² No reedbuck were seen in the 2015 aerial sample count

³ This estimate is unlikely to be correct, the Mahango Core Area is too small to sustain such a high density of kudu

						ground transects ⁴
Impala	678 (138-1386) ⁵		443 (142-744)		1121 (280-2130)	2015 aerial sample
	1519	1216	3547		6382	2017 ground transects ⁶
Duiker	5 (1-13)			30 (3-61)	35 (4-74)	2015 aerial sample
	251	857	1257		2365	2017 ground transects ⁷
Steenbok	50	63	394		507	2017 ground transects ⁸
Crocodile	93 (19-179)		88 (57-120)		181 (76-299)	2015 aerial sample
Ground hornbill				59 (6-138)	59 (6-138)	2015 aerial sample

Text to go with this table:

Table xx provides estimates of population size of most large mammal species, crocodile and ground hornbill for the three core wildlife areas and the Multiple Use Area, as well as an indication of trend (grey denotes stable, red denotes decline, green denotes increase). In some instances estimates from ground surveys are also provided.

Estimates of elephants, roan, eland and reedbuck seem to have increased consistently over the past several surveys. Sable, tsessebe and wildebeest have shown declines over the past few surveys. The aerial sample survey method followed seems to perform best for elephants and may not provide accurate estimates for other species particularly those that have a clumped distribution (e.g. buffalo, eland) or are not conspicuous (e.g. giraffe, kudu).

Ground surveys yield far higher estimates than aerial surveys (see Table zz) but are not necessarily more accurate. Ground survey estimates⁹ could potentially be used to indicate trend independently from aerial surveys but for all species except impala, duiker and steenbok, estimates derived from aerial surveys should be used for all management decisions.

Table Zz Comparison of the average 2013-2015 aerial survey estimates to those of the ground counts for the corresponding years

⁴ Confidence limits were not available at the time of writing

⁵ Estimates based on ground counts since 2011 for impala in Mahango are two to three times higher than aerial survey estimates

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⁹ Detailed information on ground surveys could not be obtained at the time of writing

Species	Aerial census estimate	Ground count estimate	Ground estimate/aerial estimate
Eland	99.7	0.0	0.0
Hippo	819.3	0.0	0.0
Crocodile	88.7	0.0	0.0
Lechwe	2 069.7	524.7	0.3
Buffalo	2 673.3	3 676.3	1.4
Sable	1 155.7	1 834.7	1.6
Wildebeest	143.0	292.0	2.0
Giraffe	94.0	206.0	2.2
Roan	290.7	710.0	2.4
Tsessebe	112.0	426.7	3.8
Zebra	488.7	1 983.3	4.1
Warthog	184.3	1 592.7	8.6
Reedbuck	17.7	206.0	11.7
Kudu	391.3	4 757.3	12.2
Impala	466.3	9 101.3	19.5
Duiker	57.3	2 204.7	38.5
Steenbok	3.3	455.0	136.5