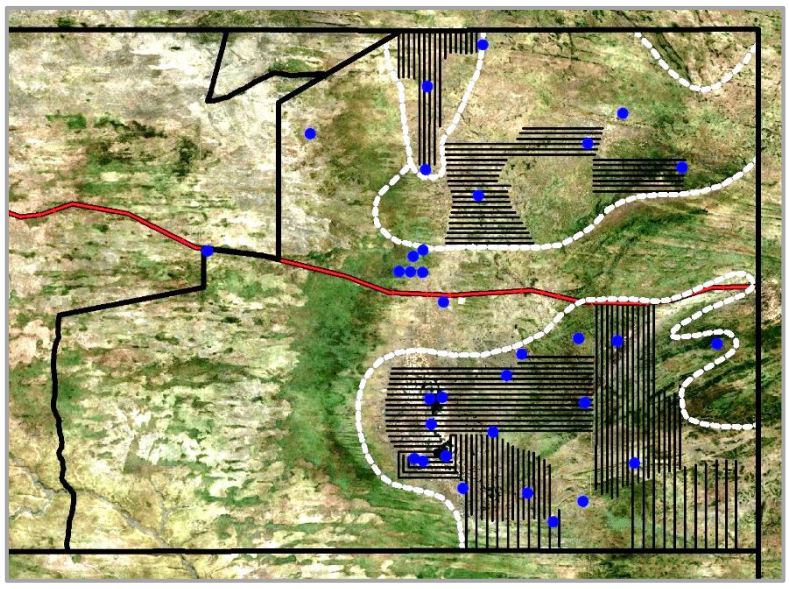
# GAME COUNTS – LINE TRANSECTS
# NYAE NYAE CONSERVANCY Aug 2021

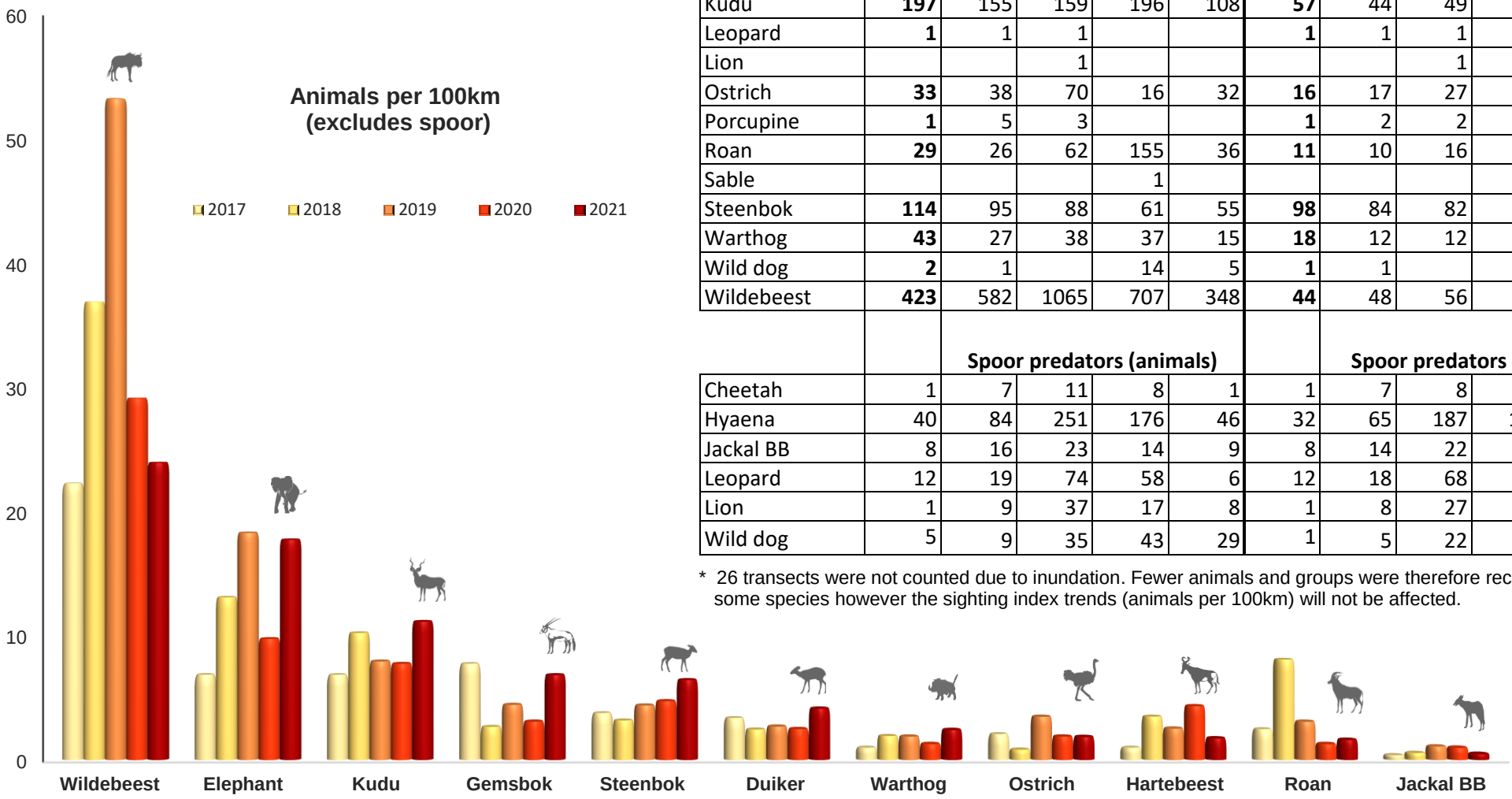
## Line Transects



## Animals and groups

| | Animals Seen | | | | | Groups seen | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Species** | ***2021** | **2020** | **2019** | **2018** | **2017** | ***2021** | **2020** | **2019** | **2018** | **2017** |
| African Wild Cat | **2** | | 1 | | | **2** | | 1 | | |
| Bat-eared fox | | 2 | | | | | 1 | | | |
| Duiker | **74** | 50 | 54 | 47 | 51 | **71** | 48 | 53 | 44 | 48 |
| Eland | | 3 | | 2 | 5 | | 1 | | 2 | 1 |
| Elephant | **316** | 195 | 366 | 251 | 91 | **61** | 63 | 70 | 68 | 39 |
| Gemsbok | **122** | 62 | 89 | 51 | 120 | **32** | 28 | 25 | 17 | 22 |
| Giraffe | **1** | 29 | 4 | 2 | 16 | **1** | 5 | 3 | 1 | 4 |
| Hartebeest | **31** | 87 | 51 | 67 | 16 | **8** | 9 | 7 | 8 | 3 |
| Honey Badger | **4** | 1 | 1 | | | **2** | 1 | 1 | | |
| Hyaena | | 2 | 1 | 1 | 2 | | 2 | 1 | 1 | 2 |
| Impala | | | | | 6 | | | | | 2 |
| Jackal BB | **9** | 20 | 22 | 11 | 6 | **8** | 17 | 10 | 8 | 6 |
| Kudu | **197** | 155 | 159 | 196 | 108 | **57** | 44 | 49 | 50 | 33 |
| Leopard | **1** | 1 | 1 | | | **1** | 1 | 1 | | |
| Lion | | | 1 | | | | | 1 | | |
| Ostrich | **33** | 38 | 70 | 16 | 32 | **16** | 17 | 27 | 9 | 13 |
| Porcupine | **1** | 5 | 3 | | | **1** | 2 | 2 | | |
| Roan | **29** | 26 | 62 | 155 | 36 | **11** | 10 | 16 | 22 | 9 |
| Sable | | | | 1 | | | | | 1 | |
| Steenbok | **114** | 95 | 88 | 61 | 55 | **98** | 84 | 82 | 56 | 55 |
| Warthog | **43** | 27 | 38 | 37 | 15 | **18** | 12 | 12 | 15 | 7 |
| Wild dog | **2** | 1 | | 14 | 5 | **1** | 1 | | 2 | 2 |
| Wildebeest | **423** | 582 | 1065 | 707 | 348 | **44** | 48 | 56 | 56 | 30 |
| | | **Spoor predators (animals)** | | | | | **Spoor predators (groups)** | | | |
| Cheetah | 1 | 7 | 11 | 8 | 1 | 1 | 7 | 8 | 6 | 1 |
| Hyaena | 40 | 84 | 251 | 176 | 46 | 32 | 65 | 187 | 133 | 42 |
| Jackal BB | 8 | 16 | 23 | 14 | 9 | 8 | 14 | 22 | 12 | 8 |
| Leopard | 12 | 19 | 74 | 58 | 6 | 12 | 18 | 68 | 52 | 6 |
| Lion | 1 | 9 | 37 | 17 | 8 | 1 | 8 | 27 | 10 | 6 |
| Wild dog | 5 | 9 | 35 | 43 | 29 | 1 | 5 | 22 | 16 | 6 |

* 26 transects were not counted due to inundation. Fewer animals and groups were therefore recorded for some species however the sighting index trends (animals per 100km) will not be affected.




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 of species numbers are provided, these should only be considered as an approximate guide to species abundance.

## Estimates

| Species | Estimate | 95% CL Low | 95% CL High | Model |
|---|---|---|---|---|
| **Duiker** | **1,920** | 1,400 | 2,650 | HN |
| **Elephant** | **1,660** | 1,135 | 2,435 | HN |
| **Gemsbok** | **1,050** | 440 | 2,520 | HN |
| **Hartebeest** | **320** | 150 | 665 | U |
| **Kudu** | **1,794** | 1,260 | 2,550 | HN |
| **Ostrich** | **170** | 145 | 490 | HN |
| **Roan** | **240** | 125 | 470 | U |
| **Steenbok** | **1,895** | 1,430 | 2,500 | HN |
| **Warthog** | **95** | 50 | 180 | U |
| **Wildebeest** | **2,655** | 1,610 | 4,370 | HN |

*Estimates (rounded) were derived using DISTANCE analysis which takes account of drop-off in animal detectability with distance from the transect line. Ten species had sufficient sightings to adequately derive species detection curves and therefore produce estimates. Model: U=uniform; HN=half normal.*

### *Overview*

Line transects were started in 2017 and represent almost half of the total area of the conservancy and include most of the waterholes. The area not covered by transects has low animal densities due to reduced habitat suitability and people pressure.

Transect counts have recorded 23 species including 6 predator species. Based on average spoor sightings hyaena are the most common predator, followed by leopard and wild dog.

The top 3 species in terms of sightings between 2017 and 2021 included wildebeest, elephant and kudu.

### *Count Statistics 2021*

- 128 transects and a total of 1,770 km
- Over 377 transect hours
- 10 count days
- 19 species recorded
- 88% of all live sightings were within 200m of the transect line
- Estimates represent a conservancy area of 4,200 km$^2$

### Rainfall mm (by season Jul-Jun)

CHIRPS
(https://earlywarning.usgs.gov/fews/datadownloads/Global/CHIRPS%202.0)