

Short report of the NamibRand Nature Reserve (NRNR) Annual Game Count Held on 07. June 2008



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Introduction

This paper provides a brief report of the results and analysis of the annual game count as held on the NamibRand Nature Reserve (NRNR) on the 7th of June 2008.

This count was again an enjoyable team effort by the NRNR community. In the early afternoon the day before the count, an information session for all counters interested was given at the Wolwedans base. After a theoretical presentation and discussion, the game count participants were encouraged to do some practical distance estimation exercises. Counters from routes that were not represented at the information session were given the route and count maps before the NamibRand Annual General Meeting later that afternoon.

Methodology

The methodology used for the 2008 game count is the same road count method implemented previously as described in the game count papers written by NRNR since June 2005. For further information and a detailed methodology description please refer to Odendaal & Shaw, 2005.

This method has proven to be successful up to date and it has been repeatedly used since 2005. It is also important that there is active participation from the NRNR community as it enables the count to be done in one day and it encourages participation from the different stakeholders on NamibRand.

As in previous years correction factors have been used to extrapolate more realistic numbers from the actual game seen and recorded by the observers on the ground. This is done once to account for the margin of error for the species counted and once to compensate for the margin of error caused by the terrain and vegetation in each route. These have been adjusted since 2005 but correction factors have not been changed since the June 2006 count. This is illustrated in Table 1 below.

Table 1

Correction Factors Used in Game Count 2008

Route	Area Correction Factor
1	3.10
2	3.03
3	4.2
4	4.38
5	2.21
6	5.09
7	4.65
8	3.74

Species	Species' Correction Factor
Gemsbok	1.4
Springbok	1.6
Kudu	2.6
Steenbok	10.0
Burchells Zebra	1.2
Ostrich	1.1
Red Hartebeest	1.5

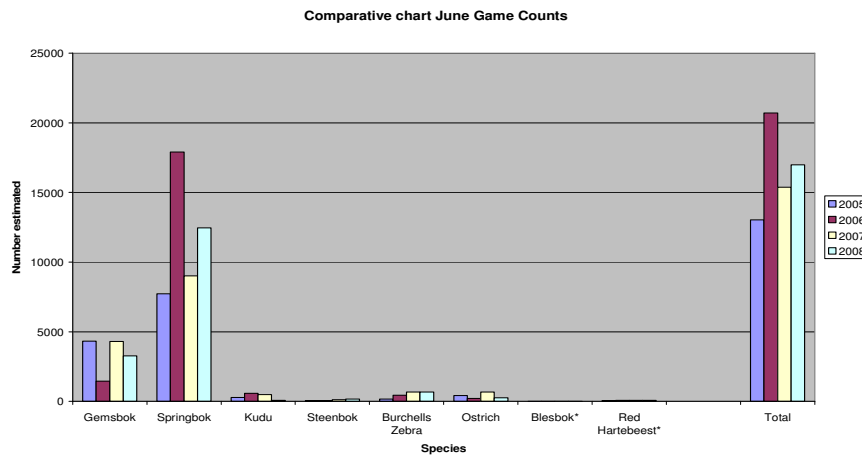
The count had the usual three objectives and some results will be discussed under the headlines below.

Objectives and Brief Discussion

Objective 1: Population Estimates

The Oryx numbers compared with June 2007 have gone down as shown in the graph below. This is only by a slight margin whilst the Springbok population went up by quite a bit compared to 2007. Zebra estimates stayed pretty constant. Most of this change especially the decline in Oryx numbers can be linked to the second objective of wildlife distribution.

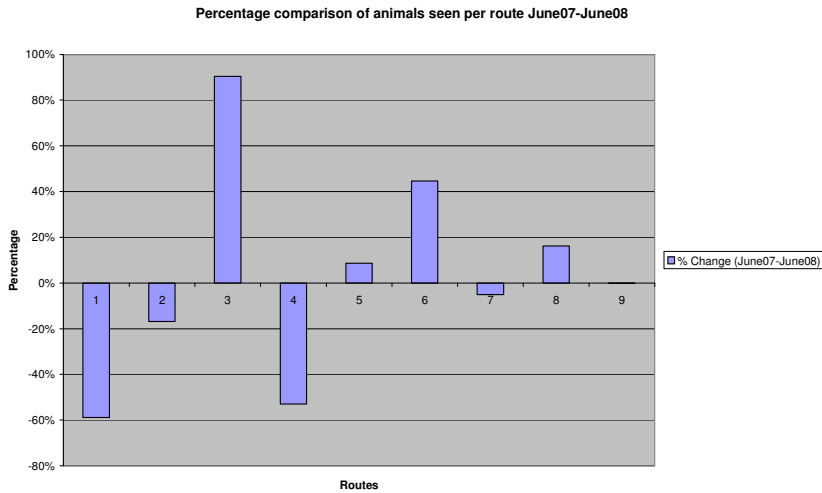
Fig 1



Objective 2: Wildlife Distribution

The game was observed to have been evenly distributed throughout the reserve due to the good overall grass cover that was caused by the good but late rains. Large Oryx numbers were reported shortly before the count from within the Namib Naukluft Park (NNP). As the rains came late in 2008 and occurred well into the NNP, many animals, especially the Oryx, stayed in the park for a long time. The usual east migration observed in previous years, was only in its beginning stages at the time of the count. Thus fewer animal herds were seen in general although many territorial bulls were observed. Larger amounts of the local Springbok population stayed on the Reserve, especially in the Gorrasis basin, and did not move so far into the park as the Oryx did and thus were counted more. Due to the late start of the migration some of the more western lying routes have seen significantly more animals than in previous years as seen in Fig.2. Note in particular the almost 90% increase in animals counted per 100km driven compared to 2007 in Route 3 (Kwessigat area).

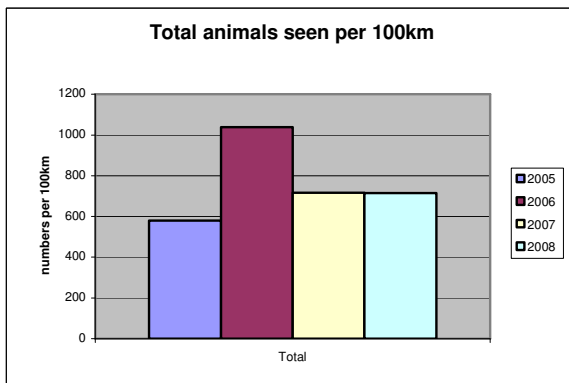
Fig. 2



Objective 3: Population Change

The general animal population change we can see in comparison with last year is 0% as shown in the graph below.

Fig 3



This calculation compares all the routes in a standardized form of animals per 100km. Although for some counters this year it might have seemed to be a mediocre count as they had expected more animals, other routes made up by having a much better count than in previous years. This is illustrated in Fig 2 above. Figure 3 compares all the counted species and not population changes within one species.

Conclusion

Although there are great variations noticed whilst counting it is quite interesting to see that the overall wildlife trends in the data sheets calculated are quite stable. Often it may seem that there is less wildlife but the data shows a different trend. Calculated in animals seen per 100km (Shown in Fig 3 above and Table 2 below) the percentage change between the animals seen is 0%, out by one animal. This is a trend that illustrates the relative stability within our ecosystem with species interactions and competitions that can only be seen by a comparative tool like the one below.

Table 2

Route	% Change (June06-June07)	% Change (June07-June08)	Total animals seen per100km Jun-07	Total animals seen per 100km Jun-08
1	2%	-59%	1117	460
2	18%	-17%	806	670
3	-66%	90%	454	863
4	-35%	-53%	275	129
5	-19%	9%	633	687
6	-55%	45%	978	1414
7	-43%	-5%	704	668
8	-9%	16%	858	996
Total	-31%	0%	716	715

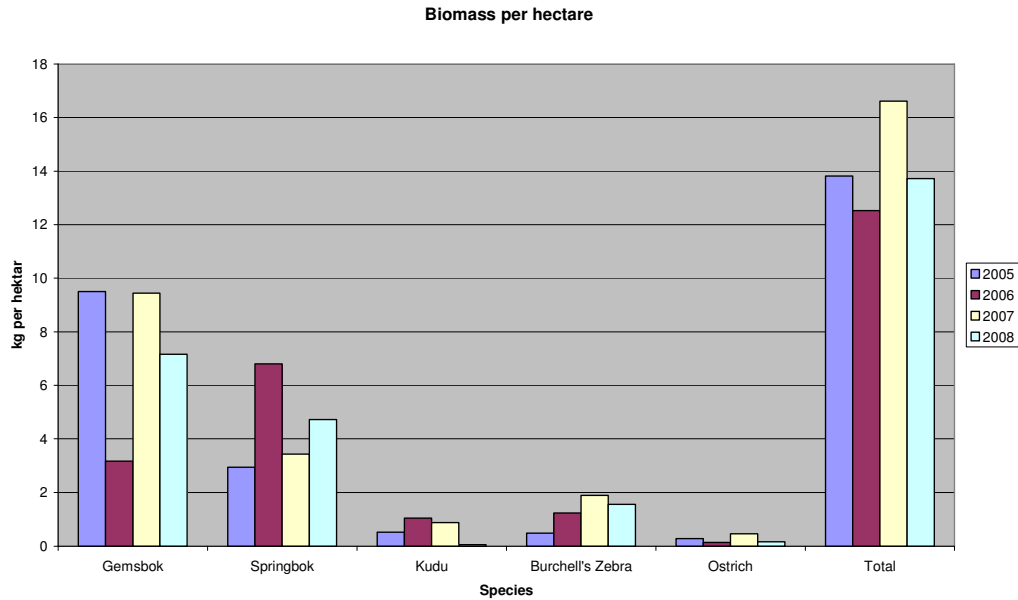
Table 3

Species	%Change June07 & June06	%Change June08 & June07	Total No. Corrected For Species June 2007	Total No. Corrected For Species June 2008
Gemsbok	191%	-18%	4,295	3,258
Springbok	-48%	33%	9,013	12,451
Kudu	-11%	-85%	486	75
Steenbok	200%	33%	125	174
Burchells Zebra	68%	-15%	677	668
Ostrich	254%	-64%	669	262
Blesbok*	33%	300%	20	20
Red Hartebeest*	14%	180%	80	80
Total	-21%	8%	15,366	16,988

Although we are statistically seeing pretty much the same amount of animals when we go on a drive, Table 3 tells us that the population in general based on actual sightings is on the increase. This is expected with the continuously good rainfall years we have had. To look at the impact on the grazing we use biomass as a standardisation between species so that Oryx and Springbok can be compared. As shown in Fig 4, the biomass figures over the years between Springbok and Oryx seem to have a correlation. Each time the Oryx biomass goes up, the Springbok biomass goes down and vice versa. This is determined by the carrying capacity of a piece of land. For

example, an area can support a total amount of biomass which can be made of a variety of different ratios between Springbok and Oryx. At the moment NRNR can still sustain the current population of animals we have. As we are opening up fences to neighboring farms thereby increasing the total area, the animals can also migrate and disperse in leaner years, which inevitably is to be expected in a desert environment.

Fig 4



Acknowledgements

NamibRand would like to thank everybody who participated in the annual game count this year. Thank you to Sossusvlei Mountain Lodge and NaDEET who provided a team each. Thanks also to Albi Brückner and Mrs Braun who gratefully drove all the way to Aandster in the morning to count Route 8. Mr. Klein again brought his support team as did Christiane Berker for the Kwessiegat route. Wolwedans was as always fully involved with their three teams which was a huge help. Thank you to the counters who stood in the sun for several hours. I hope you enjoyed the count as much as I did.