

(ATTENTION: S.P.O. Ecology)

REF. NO.: N50/7/23
ENQUIRY: J.S. du Preez
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Ecologist,
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3rd July, 1973.

TO: The Director,
Nature Conservation and Tourism,
P/Bag 13186,
WINDHOEK

AERIAL CENSUS: JUNE 19 - 26, 1973

1. In accordance with accepted policy, Nature Conservators J. Hugo, J. Joubert, G. Kotzé and A. van Vuuren took part in the count. Where N. C.'s could not take part because of other duties, I did the counting and an attempt was made to let each N.C. do the counting in his own area.
2. Typical winter conditions were met throughout the census: on some days the north-east wind was exceptionally strong and made flying most unpleasant. No rainwater pools were seen and grazing appeared to be poor in the concentration areas and reasonable elsewhere.
3. The aircraft, with N. Maritz as pilot and J. Hugo as observer took an active part in the shooting of two elephant who were responsible for serious breakages of the Kaross fence.
4. Approximately 90 elephant were counted in the vicinity of Eindpaal and this waterhole was found to be empty. N.C.'s reports that these elephant often empty the drinking trough within 2 days, hence it is small, wonder that some of these elephant visit the nearest drinking places which are on the farms to the south. If we cannot supply them with enough water to meet their requirements, surely it is unreasonable to shoot them for seeking water elsewhere on farms? As has often been seen, the present bore-hole system makes no provision for water-storage other than in the drinking-troughs. By erecting concrete reservoirs two important points can be satisfied, nl:
 - a. The N.C. need not pay daily attention to the water installations and
 - b. the water level in the drinking-troughs will stay constant thereby allowing even small animals to drink without expecting them to drop to their knees or enter the trough to reach the water.

5. The following is the result of the count:

	APRIL 1973	JUNE 1973	DIFFERENCE
Zebra	9710	5700	- 4010
Wildebeest	2590	2732	+ 142
Springbok	6417	3852	- 2565
Gemsbok	1495	1118	- 377
Eland	176	33	- 143
Giraffe	284	400	+ 116
Kudu	136	268	+ 132
Hartebeest	168	49	- 119
M. Zebra	-	39	
Elephant	281	715	+ 434
Rhino	8	3	- 5
Ostrich	1014	440	- 574
Lion	12	37	+ 25

6. Because the means at our disposal do not allow accurate counts, the effort required to trace the numerically small species, e.g. eland, does not warrant the expenditure. Also, the distribution is of greater importance at this stage. None the less, I feel that the counts of the numerically larger species serve as a good indication of conditions. In this connection a graph has been drawn of the zebra and wildebeest counts since 1968 (attached). As there are insufficient co-ordinates (counts) for an accurate graph, it was necessary to construct the graph on the basis of known months of recruitment, % recruitment etc. From this graph it is obvious that:

- a. we have lost a large number of zebra due to probably an excessively high hunting-pressure at Andoni and northwards;
- b. If this trend continues there should be no more than approximately 4000 - 5000 zebra at the end of the year;
- c. Wildebeest show a steady decline in numbers and the hunting activities on Andoni has affected them more.

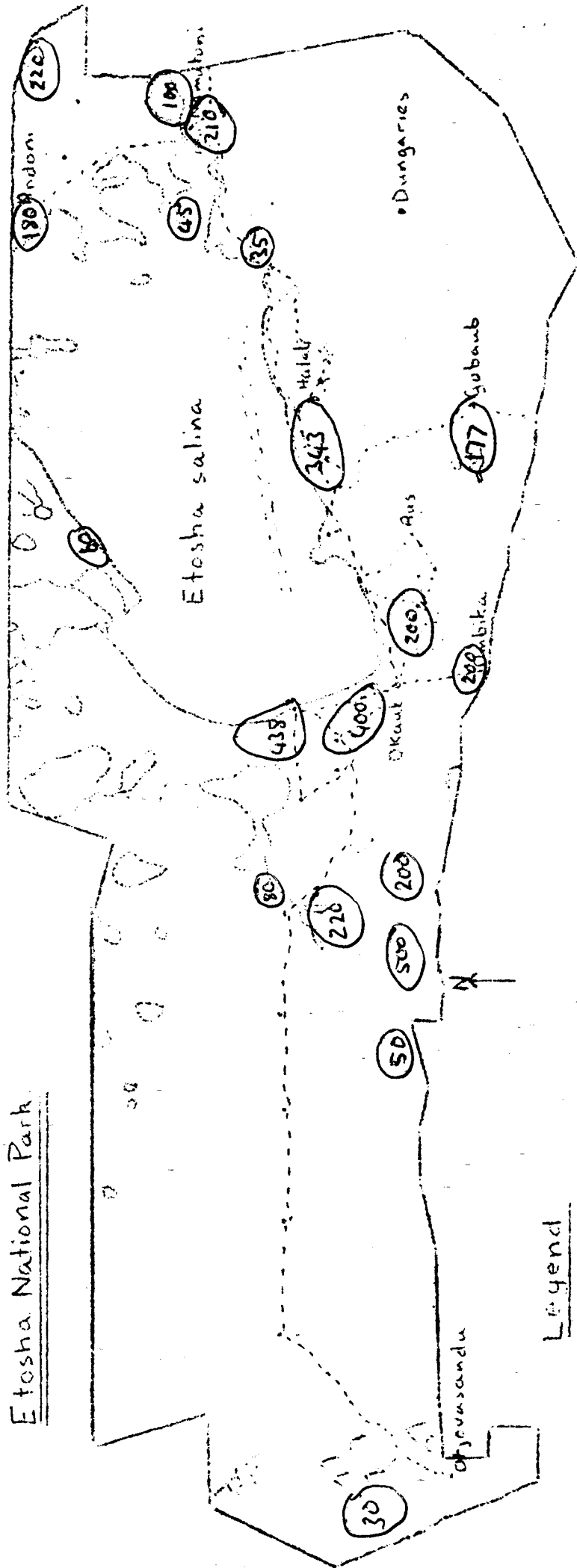
That there are other reasons for these declines should not be discussed: in fact there might be an obscure reason for the declines, just as grazing might be an important factor.

7. It is suggested that a comprehensive research project be started to determine the actual size of the game population, the yearly fluctuations due to recruitment and mortality and reasons for any abnormal fluctuations that may lead to declines. Such a research project would of necessity entail the attentions of at least 3 researchers, nl. myself, a veterinarian and a botanist in order to cover all possible factors.

8. Once again it is obvious that a helicopter must be used and the sooner, the better. The initial count should include all possible species, thereafter a single or two species can be concentrated on a indicator species. This can only be decided upon once a helicopter count has been completed and error factors determined.

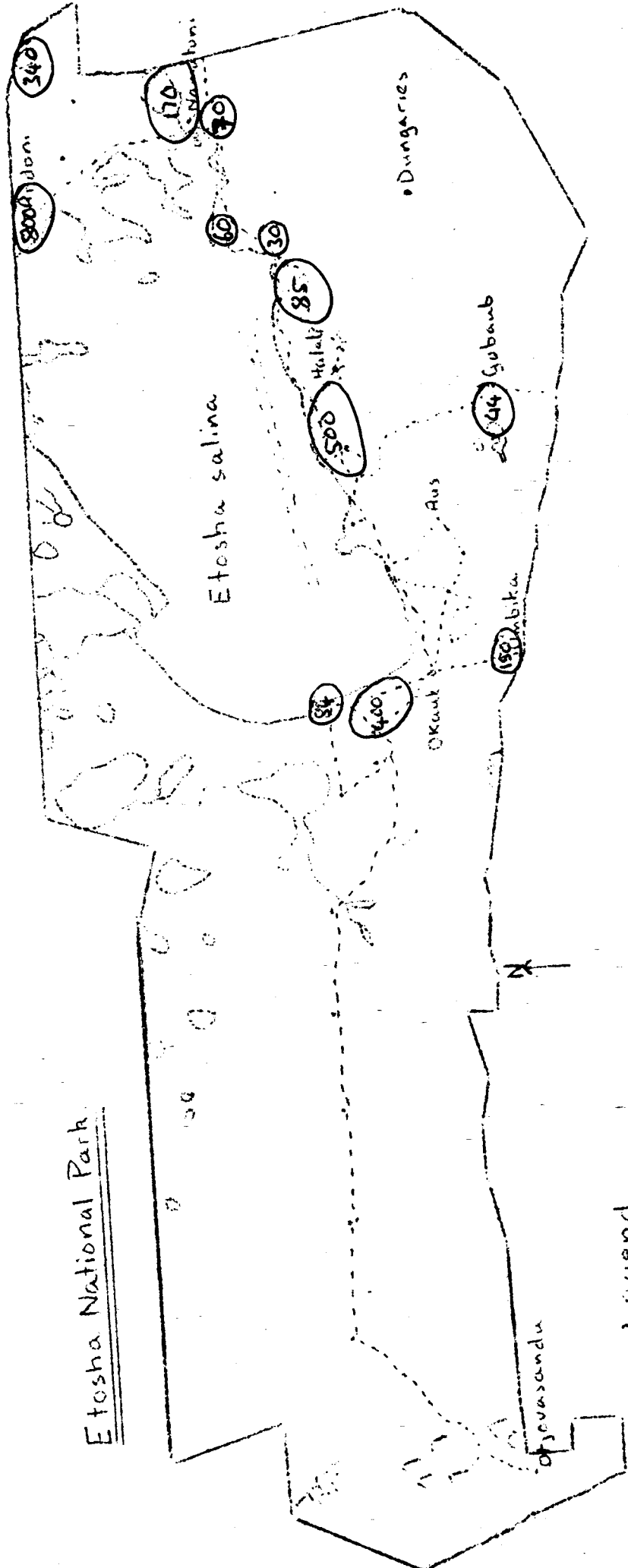
J.S. DU PREEZ

Distribution of Springbok: June 1973



Distribution of Wildebeest: June 1962

Etosha National Park

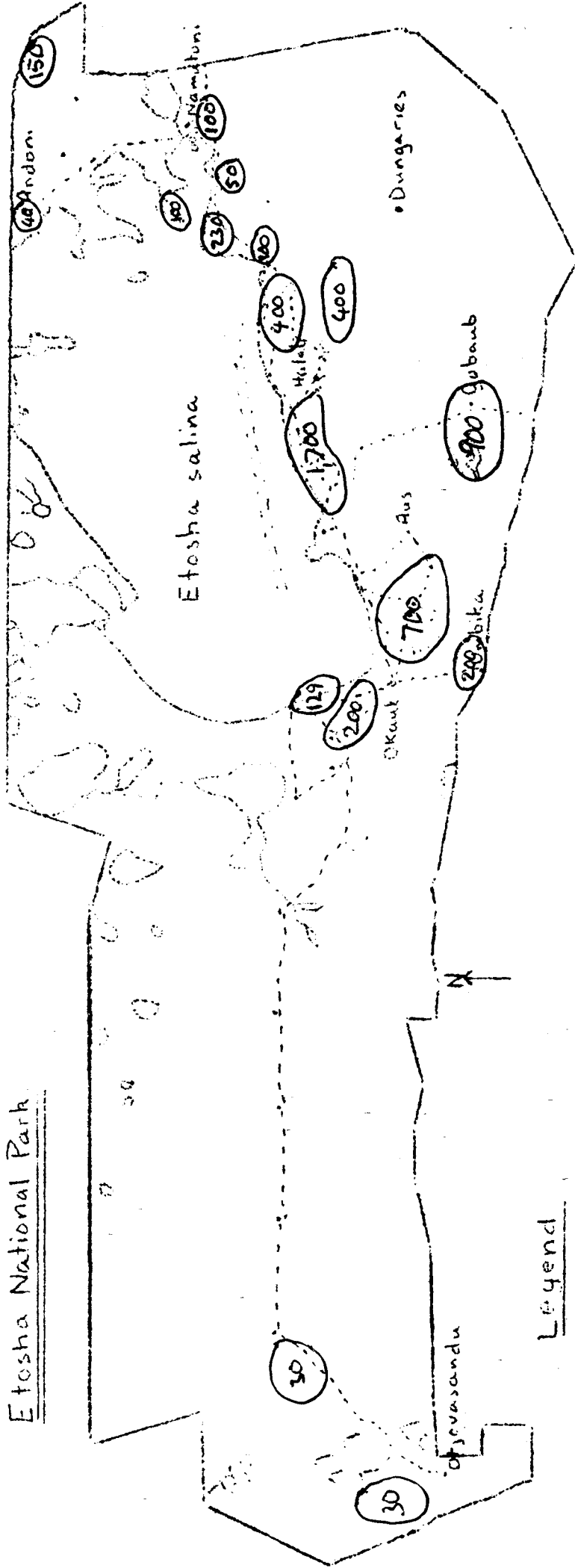


Legend

----- Roads

Distribution of Zebra: June 1973.

Etosha National Park



Legend

----- Roads

Distribution of Elephant! June 1973

Etosha National Park

