

ECOLOGY OF THE UGANDA KOB
Adenota kob thomasi NEUMANN IN
THE QUEEN ELIZABETH NATIONAL PARK, UGANDA.

by

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PREFACE

The work in this thesis was carried out by myself, except where mentioned **otherwise** either in the list of acknowledgements, or in the text.

November, 1971.

A handwritten signature in cursive script, appearing to read 'Kishorji Modha', written over a horizontal line.

K.L. Modha.

SUMMARY

A. The present work is the first major study of the species in the Queen Elizabeth National Park. The Uganda kob Adenota kob thomasi Neumann is the most numerous species of antelope in the Park.

B. The kob is a member of the tribe Reduncini which includes waterbuck, lechwe, reedbuck and puku. Though some authors include it under Kobus, it is usually classed with the puku as a separate genus, Adenota. There are eleven sub-species of kob, Adenota kob, and their distribution extends from Gambia in the west to Kenya in the east.

C. Prior to the nineteen sixties, very little work had been done on the kob but some observations had been made on wild populations mainly in the Congo and to a lesser extent in West Africa. In the last decade, the kob population at the Toro Game Reserve on the southern shore of Lake Albert in Uganda received much attention. This latter work brought to notice the existence of two types of territoriality in the species namely the territorial ground and the single territory systems. Wherever possible, the results of the present study are compared

with those of the Toro Game Reserve. Some differences are brought to light.

D. During the two years of the study, regular monthly counts were carried out in four study areas. From these census figures, the density, population structure, sex ratio and biomass are calculated. The results vary from area to area and an attempt is made to explain the differences.

E. The infant mortality was estimated for the first year of life from three parameters viz. the proportion of lactating to pregnant females, the gestation period and the mean duration of lactation. This was found to be about 50% which is very similar to the values reported by other authors for various mammals. Life tables are constructed from skulls found in the Park and from those of the cropped animals. From these life tables, survival and mortality curves are derived and these show typical mammalian mortality patterns.

F. The natural regulation of the number of kob was investigated. Man is one of the main predators

of kob in the Park. In addition to illegal hunting, which takes a heavy toll of the species, many animals are killed in traffic accidents on the main roads passing through the Park.

G. Territorial grounds in the Queen

Elizabeth National Park are not as big as those in the Toro Game Reserve. This is probably due to the high population density in the latter area. This hypothesis is supported in the present work as it was found that areas in the Park with high densities have the biggest TGs. Observations on agonistic behaviour were made on the TGs and are described briefly.

H. Observations were carried out on both the TGs and on single territories (STs). Factors governing the number of males on both types of territory are discussed. The number of males indulging in territorial behaviour is given with their proportion in the total adult male population. These results are compared with those from the Toro Game Reserve and it is found that the percentage of adult males on TGs in the Reserve is twice that in the Park.

This is attributed to the fact that the TGs in the Reserve are much bigger than those of the Park.

I. Although most of the copulations take place on TGs, the STs probably function as reserves in fertilising females who are unable to reach a TG while in oestrous. The time spent in sexual activity by a territorial male decreases with the distance from the centre of the TG. A male on ST well away from a TG spends the least amount of time in this activity.

J. The sexual organs of both sexes are illustrated and described for the first time. These do not show any marked deviation from the usual bovid pattern.

K. 54 (67.5%) of the 80 adult females collected were pregnant. Foetuses from these females were utilised in predicting conception and birth dates using Huggett and Widdas' (1951) method. The seasonal distribution of conceptions is remarkably similar to that reported by Spillage (1967 & 1969) for waterbuck, a related species. Births, extra-

polated from the conceptions, occur throughout the year but show two peaks which coincide with the two rainy seasons.

L. The foetal sex ratio was found to be 2 : 1 (male to female) which is contrary to the situation in adult animals in which the ratio of males to females is 1 : 3.