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TITLE: PRELIMINARY ANALYSIS OF FOOD QUALITY AND FEEDING HABITS OF SPOTTED HYENA (*CROCUTA CROCUTA* ERX.) IN RELATION TO THE SEASONAL MIGRATIONS OF HERBIVORES IN MASAI MARA NATIONAL RESERVE IN KENYA.

BY

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## ABSTRACT

The aim of the study was to investigate the influence of migrant herbivores on the diet of the spotted hyena in Masai Mara National Reserve. The diet of three hyena clans was studied by analysing scats and regurgitates collected in the vicinity of their dens. The relative abundance of herbivores was investigated by conducting monthly road transect counts. Hyena use of dry carcasses was monitored by following weight changes of exposed carcasses in four transects over nine months. Nutrient quality of dry carcasses (skin and bone) and of meat was analysed by the Department of Animal Physiology of the University of Nairobi at Kabete Campus.

Hyenas were found to concentrate on the most abundant migrant herbivore (wildebeeste) during the migrant season. The diet was significantly different for one of the three clans investigated, possibly because of the different movements of migrants within the clan territories as revealed by road transect counts. There were also significant differences between the diets when the migrants were present and when they were absent. The rate of carcass weight change was significantly higher when the migrants were absent than when they were present, indicating greater carcass utilisation during periods of relative prey scarcity. Nutrient analysis indicated that dry carcasses contain substantial amounts of protein, carbohydrates and minerals, although they were lacking in fats (relative to meat).

Recommendations are made for future research into this dynamic interaction between spotted hyenas and migrant herbivores in the Mara-Serengeti ecosystem.