ECOLOGICAL IMPACT OF LARGE HERBIVORES ON WOODY VEGETATION AT SELECTED WATERING POINTS IN THE KRUGER NATIONAL PARK

by

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Submitted in partial fulfilment of the requirements for the degree

MAGISTER SCIENTIAE (WILDLIFE MANAGEMENT)

in the Centre for Wildlife Management
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December 1999

Dedicated to my wife,

Letitia

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ABSTRACT

The impact of large herbivores on woody vegetation structure around watering points in the Kruger National Park, necessitated an in depth study. The logistic curve successfully modelled the impact of large herbivores on the woody vegetation around artificial watering points in the KNP. The trends found in biomass around most artificial watering points, indicate that a browsing gradient does exist around artificial watering points in the KNP. Browsing intensity is greatest closer to the watering point and decreases with distance from the watering point. The impact on biomass, extending between 500 m and 2 300 m from the watering point. This means that, on average 3 % of the total area of the KNP is affected by large herbivores congregating around artificial watering points. The eastern basaltic soils showed a trend of low shrub density close to the watering points with increasing density away from the watering point. The western granitic soils showed shrub encroachment close to the watering points on the crestal areas and trends on the footslope areas depended on woody species composition. From the results, it can not be concluded that the provision of artificial water and the accompanying grazing and browsing gradients, play a major role in the decline of large trees in the KNP.

ACKNOWLEDGEMENTS

Praise be to the Father of all creation and His Son, Jesus Christ who saved me from sin and death and taught me to have a finishing mentality.

I would like to thank the following persons and institutions for their contribution and help:

My lovely wife Letitia, for releasing me to finish this peace of work and having endless patients and grace with me, while some of my other duties were left unattended.

My supervisors Prof. N. van Rooyen and Dr. M.W. van Rooyen for being kind enough to take me in as a student, for their fast and effective work and inputs.

Prof. G.K. Theron who originally started this project with me, for help, encouragement and endless patients.

Dr. Harry Biggs for advice on statistical analysis and who gave lots of encouragement.

Richard Mashabane, Samuel Nkuna and Wilbert van't Foort for assistance in the field, on those long, hot summer days.

All the section rangers in the Kruger National Park on who's sections I worked, for assistance in the field and allowing me to freely move in my study areas.

Naledi Marè for help with the study area maps and Dr. H. Eckhardt for advice and support.

The University of Pretoria, FRD and SANP for financial and technical assistance.

My family and friends, specifically my parents for the financial and moral support, especially in the first stage of the project.