



**ECOLOGICAL MANAGEMENT OBJECTIVES AND MONITORING
PROCEDURES FOR RUSTENBURG NATURE RESERVE, NORTH
WEST PROVINCE**

BY

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**Submitted in partial fulfilment of the requirements for the degree
MAGISTER SCIENTIAE (WILDLIFE MANAGEMENT)**

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August 2000



UNIVERSITEIT VAN PRETORIA
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To Monique, Larize and Pierre

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude and appreciation to the following persons, without whose support and assistance this study would not have realized:

- The former Transvaal Nature Conservation, and the North West Parks & Tourism Board, who funded this study
- Messrs. Laurie Oates, Pierre van Rooyen and Matsima Magakgala for their continued support.
- My supervisor, Prof. Wouter van Hoven, for his guidance and contributions during the study.
- My co-supervisor, Miranda Deutschländer, for her assistance and unconditional patience and support during the analysis and writing of the thesis.
- My colleagues and friends, especially Pieter van Heerden, Mike Crowther, Oliver Knesl, Nico Grobler, Magda Goosen, Richard and Christia Newbery, Toob Roos, Mandy Momberg, Cornia Hugo and Frans Krige, who all assisted in the collection of the data. A special word of appreciation needs to go to Lorraine Mills, Tanya Canninga and Karien Brenkman for their devotion to complete the surveys.
- To my family, Monique, Larize and Pierre, for their continued support and faith in me.
- And to my parents, Hercules and Patricia, a special word of thanks for the opportunities they gave me.

Ecological management objectives and monitoring procedures for Rustenburg Nature Reserve, North West Province

by

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ABSTRACT

The physical and biological components of the Rustenburg Nature Reserve were analysed in order to classify and describe the vegetation on the reserve. This data was used to delineate homogenous management units for management and monitoring purposes. Four management units were identified. Multivariate processing techniques were used to create degradation gradients to develop an understanding of the dynamics of the vegetation in the different management units, as well as the response thereof to disturbances. The Integrated System for Plant Dynamics was used to develop degradation gradients and species response curves. Degradation gradients were interpreted in terms of species composition and appearance or disappearance of species along the gradient. Suggestions were also made with regards to a monitoring system to determine the direction and rate of change in each homogenous management unit. Past management strategies were evaluated and the effect it had on game and vegetation composition and structure were analysed. Future management actions, focussed at achieving the primary objective, viz. sustained yield of quality water, are suggested. The principle of adaptive management is also suggested as a management strategy.

Table of Contents

CHAPTER 1		
Introduction		2
CHAPTER 2		
Goals and objectives of Rustenburg Nature Reserve & the principles in the design of a monitoring system		6
Ecological objectives for Rustenburg Nature Reserve		7
Monitoring the dynamics of the vegetation		11
CHAPTER 3		
Study area		15
Physical environment		15
Location		15
History		18
Physiography		19
Geology		20
Transvaal sequence		20
Bushveld igneous complex		21
Quaternary and tertiary deposits		23
Soils		24
Climate		42
Hydrology		49

CHAPTER 4

The vegetation of Rustenburg Nature Reserve	52
Methods	
Species Composition	53
Structural Analysis of the Woody Vegetation	56
Results	
Classification	57
Identification of management units as a basis for assessing change	128
Ordination	131
Management Units	133

CHAPTER 5

Ecological management objectives	141
Introduction	
Construction of the degradation gradient	144
Methods	
Data analysis	146
Integrated system for plant dynamics	146
Definition of a degradation gradient	150
Results	
Identification of key species in different vegetation units	167
Description of the degradation gradient for the management units as a basis for interpretation of monitoring results	178
Management unit 1 - <i>Selaginella dregei</i> - <i>Oldenlandia herbacea</i> Open Shrub land	179
Management unit 2 - <i>Becium obovatum</i> - <i>Elionurus muticus</i> Tall Open Grassland	184
Management unit 3 - <i>Ziziphus mucronata</i> - <i>Rhus leptodictya</i> Closed Woodland	190
Application of degradation gradient analysis to monitor veld condition in Rustenburg Nature Reserve	196
Inserting new samples in the degradation gradient for monitoring purposes	196



Chapter 6

Management recommendations	204
Veld management	204
Game management and stocking rate	208
Veld burning as a management practise	236

Chapter 7

Conclusions	246
Summary	251
Opsomming	254
Literature	257

List of tables

Table 1	A summary of selected properties of the different soil types on Rustenburg Nature Reserve
Table 2	The results of an analysis of selected properties of the A-horison of the soil on Rustenburg Nature Reserve
Table 3	Monthly average temperature and rainfall figures for Rustenburg Nature Reserve from 1980 - 1997
Table 4	Phytosociological table for the <i>Englerophytum magalismontanum</i> - <i>Ancylobotrys capensis</i> shrub land and <i>Eragrostis nindensis</i> - <i>Cyperus rupestris</i> Short Grassland vegetation communities
Table 5	Phytosociological table for the <i>Tristachya biseriata</i> - <i>Protea caffra</i> , <i>Protea guagedi</i> - <i>Monocymbium ceresiiforme</i> , <i>Indigofera comosa</i> - <i>Schizachyrium sanguineum</i> , <i>Plexipus hederaceus</i> - <i>Cymbopogon excavatus</i> , <i>Tristachya leucotrix</i> - <i>Setaria sphacelata</i> and <i>Themeda triandra</i> - <i>Brachiaria serrata</i> vegetation communities
Table 6	Phytosociological table for the <i>Acacia caffra</i> - <i>Ziziphus mucronata</i> Tall Closed Woodland, <i>Mimusops zeyheri</i> - <i>Hypoestes forskali</i> Tall Forest, <i>Brachylaena rotundata</i> - <i>Englerophytum magalismontanum</i> High Open Shrubland
Table 7	The number of individuals per hectare in the different height classes for the woody component of the <i>Asparagus virgata</i> - <i>Celtis africana</i> sub-community of the <i>Acacia caffra</i> - <i>Ziziphus mucronata</i> vegetation community.
Table 8	Phytosociological table for the <i>Pteridium aquilinum</i> - <i>Miscanthus junceus</i> Tall Closed Grassland and <i>Aristida junciformis</i> - <i>Arundinella nepalensis</i> Tall Closed Grassland
Table 9	Synoptic table of the vegetation on Rustenburg Nature Reserve
Table 10	Identification of key species in the different vegetation units based on their response to grazing.
Table 11	Results of aerial counts, drive census and road strip census of game on the Rustenburg Nature Reserve

List of Figures

- Figure 1: A framework for the development of a monitoring system (Ferrar 1983) (p 13)
- Figure 2: Location map for Rustenburg Nature Reserve (p 16)
- Figure 3: Management map for Rustenburg Nature Reserve (p 17)
- Figure 4: The Geology of Rustenburg Nature Reserve (p 22)
- Figure 5: Soils of the Rustenburg Nature Reserve (p 31)
- Figure 6: Ecological Climate diagram for Rustenburg Nature Reserve (p 44)
- Figure 7: The variance in the mean annual rainfall for Rustenburg Nature Reserve (p 48)
- Figure 8: Annual flow rate of the Waterkloofspruit in the Rustenburg Nature Reserve (p 50)
- Figure 9: A histogram of the structure of the woody component of the *Burkea africana* - *Themeda triandra* Tall Open Woodland variation of the *Burkea africana* - *Setaria sphacelata* Tall Open Woodland on Rustenburg Nature Reserve (p 85).
- Figure 10: A histogram of the structure of the woody component of the *Aloe greatheadii*- *Themeda triandra* Tall Open Woodland in the southern section of the central basin on Rustenburg Nature Reserve. (p 87)
- Figure 11: A histogram of the structure of the woody component of the *Aloe greatheadii*- *Themeda triandra* Tall Open Woodland on the northern plateau on Rustenburg Nature Reserve. (p 88)
-

- Figure 12: A histogram of the structure of the woody component of the *Protea gaguedi* - *Monocymbium ceresiiforme* Short Open Shrubland on the northern plateau on Rustenburg Nature Reserve. (p 90)
- Figure 13: A histogram of the structure of the *Ruellia cordata* - *Senecio venosus* Tall Sparse Woodland sub-community of the *Tristachya leucotrix* - *Setaria sphacelata* Tall Sparse Woodland community on Rustenburg Nature Reserve. (p 94)
- Figure 14: A histogram of the structure of the *Digitaria eriantha* - *Lippia javanica* Tall Closed Woodland of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland on Rustenburg Nature Reserve. (p 101)
- Figure 15: A histogram of the structure of the *Setaria lindenbergiana* - *Artemisia afra* Tall Closed Woodland sub-community of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 103)
- Figure 16: A histogram of the structure of the *Turbina oblongata* - *Phyllanthus glaucophyllus* High Closed Shrubland variation of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 106)
- Figure 17: A histogram of the structure of the *Diospyros lycioides* - *Rhus rigida* Tall Closed Woodland variation of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 108)
- Figure 18: A histogram of the structure of the *Themeda triandra* - *Elionurus muticus* Tall Closed Woodland variation of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 110)
-

- Figure 19: A histogram of the structure of the *Senecio venosus* - *Heteropogon contortus* Tall Closed Woodland of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 115)
- Figure 20: A histogram of the structure of the *Euclea crispa* - *Panicum maximum* Tall Closed Woodland of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 118)
- Figure 21: A histogram of the structure of the *Asparagus virgata* - *Celtis africana* Tall Closed Woodland of the *Acacia caffra* - *Ziziphus mucronata* Tall Closed Woodland community on Rustenburg Nature Reserve. (p 121)
- Figure 22: The positions of the different vegetation communities and sub-communities along the two axis of a DECORANA - ordination (p 132)
- Figure 23: A vegetation map for Rustenburg Nature Reserve with the four management units illustrated (p 136)
- Figure 24: A diagrammatical representation of the ISPD computer system (Bosch *et al* 1992b) (p 148)
- Figure 25: Spatial distribution of the survey sites on the first and second axis of the DCA-ordination for the three different management units (p 152 - 154)
- Figure 26: The spatial distribution of the sample sites in Management Unit I according to the first and second axis of the (a) CPCA, (b) SPCA and (c) RA ordination. (p 156 -158)
- Figure 27: The spatial distribution of the sample sites in Management Unit 2 according to the first and second axis of the (a) CPCA, (b) SPCA and (c) RA ordination. (p 161 - 163)
- Figure 28: The spatial distribution of the sample sites in Management Unit 3 according to the first and second axis of the (a) CPCA, (b) SPCA and (c) RA ordination. (p 164-166)
-

- Figure 29: The classification of individual species in Management Unit I according to their responses to different levels of utilization (p 172 - 173)
- Figure 30: The classification of individual species in Management Unit II according to their responses to different levels of utilization (p 175-176)
- Figure 31: The classification of individual species in Management Unit III according to their responses to different levels of utilization (p 177)
- Figure 32: Ordination results of the CPCA ordination of the sites in Management Unit 1. (p 181)
- Figure 33: The total number of plant species encountered in each utilization class along the degradation gradient in Management Unit 1. (p 182)
- Figure 34: Ordination results of the CPCA ordination of the sites in Management Unit 1, indicating the amount of erosion in each site (p 183)
- Figure 35: Ordination results of the CPCA ordination of the sites in Management Unit 2. (p 186)
- Figure 36: The total number of plant species encountered in each utilization class along the degradation gradient in Management Unit 2. (p 187)
- Figure 37: Ordination results of the CPCA ordination of the sites in Management Unit 2, indicating the amount of erosion in each site. (p 189)
- Figure 38: Ordination results of the CPCA ordination of the sites in Management Unit 3. (p 193)
- Figure 39: The total number of plant species encountered in each utilization class along the degradation gradient in Management Unit 3. (p 194)
- Figure 40: Ordination results of the CPCA ordination of the sites in Management Unit 3, indicating the amount of erosion in each site. (p 195)
- Figure 41: Positioning of selected monitoring sites on the degradation gradient of the Management Unit 1 (p 200)
- Figure 42: Positioning of selected monitoring sites on the degradation gradient of the Management Unit 2 (p 201)
-

- Figure 43: Positioning of selected monitoring sites on the degradation gradient of the Management Unit 3 (p 202)
- Figure 44: a Systems representation of the hydrological cycle at catchment level (Wicht 1971). (p 206)
- Figure 45: The trend in the population of sable antelope on Rustenburg Nature Reserve since 1985 (p 215)
- Figure 46: The trend in the population of impala on Rustenburg Nature Reserve since 1985 (p 218)
- Figure 47: The trend in the population of eland on Rustenburg Nature Reserve since 1985 (p 219)
- Figure 48: The trend in the waterbuck population on Rustenburg Nature Reserve since 1985 (p 220)
- Figure 49: The trend in the population of zebra on Rustenburg Nature Reserve since 1985 (p 222)
- Figure 50: The trend in the population of red hartebeest on Rustenburg Nature Reserve since 1985 (p 223)
- Figure 51: The trend in the population of springbuck on Rustenburg Nature Reserve since 1985 (p 223)
- Figure 52: The size of the area of the Rustenburg Nature Reserve reserve that burnt each year since 1985 (p 241)
- Figure 53: The fire interval in a 25 ha cell in the Rustenburg Nature Reserve reserve since 1985 (p 242)