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Vegetation description and mapping along a strip
transect in central Namibia with the aid of satellite
imagery.

by

MARIANNE MARGARETHE STROHBACH

MAGISTER SCIENTIAE

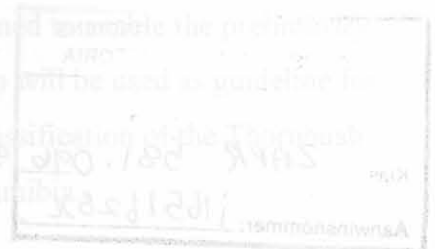
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Supervisor: Prof. Dr. G.J. Breitenkamp



ABSTRACT

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Long-term vegetation monitoring and effective land-use planning and -management in Namibia is currently hampered by a lack of ecological data available on different vegetation types. The Vegetation Survey Project of Namibia, together with BIOTA Southern Africa, aims to progressively re-classify the Namibian vegetation which has thus far only been sketchily described by the Preliminary Vegetation Map of Namibia of 1971 and the Homogenous Farming Areas Report of 1979.

Vegetation along a strip transect traversing mainly the Thornbush Savanna of Namibia was classified and characterised by subjecting 467 samples, distributed over a 30 x 320 km transect, to Braun-Blanquet and TWINSPAN procedures. Initial stratification of this transect was done by means of two LANDSAT-7-TM false-colour satellite images. Classification of floristic data resulted in the description of 14 different vegetation types. The distribution of these vegetation types was established using a supervised classification of the satellite images. Several vegetation types were combined to enable the preliminary mapping of vegetation types on a 1: 250 000 scale. This map will be used as guideline for further validating vegetation surveys to enable a future re-classification of the Thornbush Savanna described by the Preliminary Vegetation Map of Namibia.

INDEX

	Page
1. INTRODUCTION	1
2. AIMS OF THE STUDY	1
3. PROBLEM ANALYSIS	1
4. LOCATION OF THE STUDY AREA	1
5. PHYSICAL CHARACTERISTICS OF THE STUDY AREA	1
5.1. Climate	1
5.2. Geology	1
5.3. Soils	1
6. FLORA GEOGRAPHY AND DIVERSITY	1
7. LITERATURE REVIEW ON PRINCIPLES AND PRACTICES OF METHODS USED IN THIS STUDY	1
7.1. Development of Ecological Practices	21
7.2. Choice of methods of data analysis in vegetation descriptions	27
7.3. Vegetation mapping with the aid of remote sensing	31
7.3.1 Some basic technical background on satellite image processing	31
8. METHODS	31
8.1. Phytosociological Methods	31
8.2. Image processing of satellite data to assess the distribution of the major vegetation types of the study area	31
8.2.1. Pre-processing of the satellite image	31
8.2.2. Image Classification process	31

Dedicated to two pioneers of Namibian Botany, Willy Giess (1910-2000) and Prof. O.H. Volk (1903-2000)

INDEX

	Page
1. INTRODUCTION	1
2. AIMS OF THE STUDY	6
3. PROBLEM ANALYSIS	6
4. LOCATION OF THE STUDY AREA	7
5. ABIOTIC CHARACTERISTICS OF THE STUDY AREA	
5.1. Climate	9
5.2. Geology	13
5.3. Soils	16
6. PHYTOGEOGRAPHY AND DIVERSITY	22
7. LITERATURE REVIEW ON PRINCIPLES AND PRACTICES OF METHODS USED IN THIS STUDY	
7.1. Development of Ecological Practices	27
7.2. Choice of methods of data analysis in vegetation description	29
7.3. Vegetation mapping with the aid of remote sensing	31
7.3.1 Some basic technical background on satellite image processing	33
8. METHODS	
8.1. Phytosociological Methods	38
8.2. Image processing of satellite data to assess the distribution of the major vegetation types of the study area	42
8.2.1. Pre-processing of the satellite image	42
8.2.2. Image Classification process	42

9. RESULTS AND DISCUSSION	
9.1 Taxonomic overview of species recorded during the survey	45
9.2. Phytosociological analyses	47
9. 3. Characterisation of vegetation associations	59
9.3.1 Association 1: <i>Catophractes alexandri</i> - <i>Willkommia sarmentosa</i> tall sparse shrubland	59
9.3.2. Association 2: <i>Boscia albitrunca</i> - <i>Eragrostis cylindriflora</i> low open woodland	63
9.3.3. Association 3: <i>Acacia mellifera</i> - <i>Leucosphaera bainesii</i> low closed shrubland with patches of low open woodland	66
9.3.4. Association 4: <i>Acacia mellifera</i> - <i>Eragrostis rotifer</i> low moderately closed bushland	69
9.3.5. Association 5: <i>Acacia mellifera</i> - <i>Monechma genistifolium</i> low semi-open bushland	72
9.3.6. Association 6: <i>Albizia anthelmintica</i> - <i>Stipagrostis uniplumis</i> low open woodland	74
9.3.7. Association 7: <i>Acacia mellifera</i> - <i>Aristida congesta</i> low semi-open bushland	77
9.3.8. Association 8: <i>Acacia erioloba</i> - <i>Stipagrostis uniplumis</i> low semi-open bushland	79
9.3.9. Association 9: <i>Lonchocarpus nelsii</i> - <i>Eragrostis rigidior</i> low moderately closed bushland	82
9.3.10. Association 10: <i>Boscia foetida</i> - <i>Leucosphaera bainesii</i> low semi-open bushland	85
9.3.11. Association 11: <i>Acacia mellifera</i> - <i>Stipagrostis hirtigluma</i> low moderately closed bushland	88
9.3.12. Association 12: <i>Acacia mellifera</i> - <i>Cenchrus ciliaris</i> low moderately closed bushland	91
9.3.13. Association 13: <i>Dichrostachys cinerea</i> - <i>Cenchrus ciliaris</i> low moderately closed bushland	93
9.3.14. Association 14: <i>Terminalia prunioides</i> - <i>Croton gratissimus</i> low closed bushland	96

9.4. Comparison of vegetation states within and between plant associations	99
9.4.1 Association 1: <i>Catophractes alexandri</i> - <i>Willkommia sarmentosa</i> tall sparse shrubland	106
9.4.2. Association 2: <i>Boscia albitrunca</i> - <i>Eragrostis cylindriflora</i> low open woodland	107
9.4.3. Association 3: <i>Acacia mellifera</i> - <i>Leucosphaera bainesii</i> low closed shrubland with patches of low open woodland	108
9.4.4. Association 4: <i>Acacia mellifera</i> - <i>Eragrostis rotifer</i> low moderately closed bushland	111
9.4.5. Association 5: <i>Acacia mellifera</i> - <i>Monechma genistifolium</i> low semi-open bushland	113
9.4.6. Association 6: <i>Albizia anthelmintica</i> - <i>Stipagrostis uniplumis</i> low open woodland	115
9.4.7. Association 7: <i>Acacia mellifera</i> - <i>Aristida congesta</i> low semi-open bushland	116
9.4.8. Association 8: <i>Acacia erioloba</i> - <i>Stipagrostis uniplumis</i> low semi-open bushland	118
9.4.9. Association 9: <i>Lonchocarpus nelsii</i> - <i>Eragrostis rigidior</i> low moderately closed bushland	120
9.4.10. Association 10: <i>Boscia foetida</i> - <i>Leucosphaera bainesii</i> low semi-open bushland	121
9.4.11. Association 11: <i>Acacia mellifera</i> - <i>Stipagrostis hirtigluma</i> low moderately closed bushland	122
9.4.12. Association 12: <i>Acacia mellifera</i> - <i>Cenchrus ciliaris</i> low moderately closed bushland	124
9.4.13. Association 13: <i>Dichrostachys cinerea</i> - <i>Cenchrus ciliaris</i> low moderately closed bushland	126
9.3.14. Association 14: <i>Terminalia prunioides</i> - <i>Croton gratissimus</i> low closed bushland	128
	130

10. VEGETATION MAPPING	
10.1. Mapping of satellite classifications of the vegetation	130
10.2. Comparison of the satellite-data map to existing vegetation maps	133
10.2.1. Okahandja Thornbush Savanna (A6)	135
10.2.2. Osire Sandveld (A5)	135
10.2.3. Erosion Areas of the Etjo Catchment Area (C)	136
10.2.4. Otjiwarongo Thornbush savanna (A4)	137
10.2.5. Otjenga Plains (A3)	138
10.2.6. Namibian Maize Triangle (A9)	139
11. CONCLUSION	141
SUMMARY	145
ACKNOWLEDGEMENTS	147
REFERENCES	148
APPENDICES	
APPENDIX 1.1. - Synoptic Tables	161
APPENDIX 1.2 - Phytosociological Tables	174
APPENDIX 2 - Full annotated species list	212
APPENDIX 3 - Standard survey sheets	223
APPENDIX 4 - Fold-out maps	

LIST OF FIGURES

	Page
Figure 1: Position of Transects and Observatories of the overall Project BIOTA Southern Africa	5
Figure 2: Location of the Study Area	8
Figure 3: Long-term mean minimum and maximum temperatures for the study area	11
Figure 4: Long-term average rainfall over the study area represented in isohyets	12
Figure 5: Long-term average distribution of rainfall over the year as experienced in the study area	12
Figure 6: Diagrammatic representation of the main geological strata found in the study area	14
Figure 7: Major soil types of the study area	21
Figure 8: Sections of the “Preliminary Vegetation Map of Namibia” within the study area	26
Figure 9: Electromagnetic spectrum	35
Figure 10: Some typical reflectance spectra compared to scanning-bands of LANDSAT sensors	37
Figure 11: Determining soil texture by the “Feel Method”	41
Figure 12: Principal Components Analysis of associations for Associations 1 to 9	48
Figure 13: Principal Components Analysis of Associations for Associations 10 to 14	49
Figure 14: Detrended Correspondence Analysis of associations for Associations 1 to 9	50
Figure 15: Detrended Correspondence Analysis of Associations for Associations 10 to 14	51
Figure 16: TWINSpan Dendrogram	54
Figure 17: False-colour satellite image of the oshanas on Otjiku and Marienhof	61
Figure 18a: Pie chart of total number of species recorded per layer in association 1	62
Figure 18b: Pie chart of average percentage cover each layer of vegetation association 1	62
Figure 19a: Pie chart of total number of species recorded per layer in association 2	65
Figure 19b: Pie chart of average percentage cover each layer of vegetation association 2	65
Figure 20a: Pie chart of total number of species recorded per layer in association 3	68
Figure 20b: Pie chart of average percentage cover each layer of vegetation association 3	68
Figure 21a: Pie chart of total number of species recorded per layer in association 4	71

Figure 21b: Pie chart of average percentage cover each layer of vegetation association 4	71
Figure 22a: Pie chart of total number of species recorded per layer in association 5	73
Figure 22b: Pie chart of average percentage cover each layer of vegetation association 5	74
Figure 23a: Pie chart of total number of species recorded per layer in association 6	76
Figure 23b: Pie chart of average percentage cover each layer of vegetation association 6	76
Figure 24a: Pie chart of total number of species recorded per layer in association 7	78
Figure 24b: Pie chart of average percentage cover each layer of vegetation association 7	79
Figure 25a: Pie chart of total number of species recorded per layer in association 8	81
Figure 25b: Pie chart of average percentage cover each layer of vegetation association 8	81
Figure 26a: Pie chart of total number of species recorded per layer in association 9	84
Figure 26b: Pie chart of average percentage cover each layer of vegetation association 9	84
Figure 27a: Pie chart of total number of species recorded per layer in association 10	87
Figure 27b: Pie chart of average percentage cover each layer of vegetation association 10	87
Figure 28a: Pie chart of total number of species recorded per layer in association 11	90
Figure 28b: Pie chart of average percentage cover each layer of vegetation association 11	90
Figure 29a: Pie chart of total number of species recorded per layer in association 12	92
Figure 29b: Pie chart of average percentage cover each layer of vegetation association 12	93
Figure 30a: Pie chart of total number of species recorded per layer in association 13	95
Figure 30b: Pie chart of average percentage cover each layer of vegetation association 13	96
Figure 31a: Pie chart of total number of species recorded per layer in association 14	98
Figure 31b: Pie chart of average percentage cover each layer of vegetation association 14	98
Figure 32: Samples representing the different vegetation states found in association 1	107
Figure 33: Selection of samples representing the different vegetation states in association 2	108
Figure 34: Selection of samples representing the different vegetation states in association 3	109
Figure 35: Example of vegetation of association 3 in state 1 (very poor)	110

Figure 36: Example of vegetation of association 3 in state 3 (moderate)	110
Figure 37: Selection of samples representing the different vegetation states in association 4	111
Figure 38: Example of vegetation of association 4 in state 1 (very poor)	112
Figure 39: Example of vegetation of association 4 in state 5 (good)	112
Figure 40: Selection of samples representing the different vegetation states in association 5	114
Figure 41: Example of vegetation of association 5 in state 2 (poor)	114
Figure 42: Selection of samples representing the different vegetation states in association 6	115
Figure 43: Example of vegetation of association 6 in state 5 (good)	116
Figure 44: Selection of samples representing the different vegetation states in association 7	117
Figure 45: Example of vegetation of association 7 in state 3 (degraded)	118
Figure 46: Selection of samples representing the different vegetation states in association 8	119
Figure 47: Example of vegetation of association 8 in state 5 (good)	119
Figure 48: Selection of samples representing the different vegetation states in association 9	120
Figure 49: Selection of samples representing the different vegetation states in association 10	121
Figure 50: Example of vegetation of association 10 in state 2 (poor)	122
Figure 51: Selection of samples representing the different vegetation states in association 11	123
Figure 52: Example of vegetation of association 11 in state 2 (poor)	124
Figure 53: Selection of samples representing the different vegetation states in association 12	125
Figure 54: Example of vegetation of association 12 in state 5 (good)	126
Figure 55: Selection of samples representing the different vegetation states in association 13	127
Figure 56: Example of vegetation of association 13 in state 2 (poor)	128
Figure 57: Selection of samples representing the different vegetation states in association 14	129
Figure 58: Example of vegetation of association 14 in state 3 (degraded)	129
Figure 59: Classification of part of the northern satellite image according to the TWINSpan associations	130

Figure 60: Relationship of the Preliminary Vegetation Map of Namibia by Giess (1971) and the Homogenous Farming Areas Report (Dept. Agricultural Technical Services 1979) 133

Figure 61: Map of the different vegetation types of the Homogenous Farming Areas Report (1979), compared to the Preliminary vegetation Types of Namibia by Giess (1971) and the location of the study area 134

Table 3: Taxonomic grouping of recorded plant species of the study area 45

Table 4: Overview of Vegetation Associations 1-5 53

Table 5: Overview of Vegetation Association 6-9 56

Table 6: Overview of Vegetation Association 10-14 61

Table 7: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 66

Table 8: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 67

Table 9: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 68

Table 10: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 69

Table 11: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 70

Table 12: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 71

Table 13: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 72

Table 14: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 73

Table 15: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 74

Table 16: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 75

Table 17: Abundance and cover percentages of predominant species of the *Stipagrostis* vegetation association 76

LIST OF TABLES

	Page
Table 1: Geological Timescale	15
Table 2: Number of species per recorded layer, based on fully-grown specimens	45
Table 3: Taxonomic grouping of recorded plant species of the study area	46
Table 4: Overview of Vegetation Associations 1-5	55
Table 5: Overview of Vegetation Associations 6-9	56
Table 6: Overview of Vegetation Associations 10-14	57
Table 7: Abundance and cover percentages of predominant species of the <i>Catophractes alexandri</i> - <i>Willkommia sarmentosa</i> vegetation association	60
Table 8: Abundance and cover percentages of predominant species of the <i>Boscia albitrunca</i> - <i>Eragrostis cylindriflora</i> vegetation association	64
Table 9: Abundance and cover percentages of predominant species of the <i>Acacia mellifera</i> - <i>Leucosphaera bainesii</i> vegetation association	67
Table 10: Abundance and cover percentages of predominant species of the <i>Acacia mellifera</i> - <i>Eragrostis rotifer</i> vegetation association	70
Table 11: Abundance and cover percentages of predominant species of the <i>Acacia mellifera</i> - <i>Monechma genistifolium</i> vegetation association	72
Table 12: Abundance and cover percentages of predominant species of the <i>Albizia anthelmintica</i> - <i>Stipagrostis uniplumis</i> vegetation association	75
Table 13: Abundance and cover percentages of predominant species of the <i>Acacia mellifera</i> - <i>Aristida congesta</i> vegetation association	77
Table 14: Abundance and cover percentages of predominant species of the <i>Acacia erioloba</i> - <i>Stipagrostis uniplumis</i> vegetation association	80
Table 15: Abundance and cover percentages of predominant species of the <i>Lonchocarpus nelsii</i> - <i>Eragrostis rigidior</i> vegetation association	83
Table 16: Abundance and cover percentages of predominant species of the <i>Boscia foetida</i> - <i>Leucosphaera bainesii</i> vegetation association	86
Table 17: Abundance and cover percentages of predominant species of the <i>Acacia mellifera</i> - <i>Stipagrostis hirtigluma</i> vegetation association	89

Table 18: Abundance and cover percentages of predominant species of the <i>Acacia mellifera</i> - <i>Cenchrus ciliaris</i> vegetation association	91
Table 19: Abundance and cover percentages of predominant species of the <i>Dichrostachys cinerea</i> - <i>Cenchrus ciliaris</i> vegetation association	94
Table 20: Abundance and cover percentages of predominant species of the <i>Terminalia prunioides</i> - <i>Croton gratissimus</i> vegetation association	97
Table 21: Values assigned to each grass species for the definition of vegetation states	102
Table 22: Comparison of statistics on total cover percentages of associations	105
Table 23: Comparison of statistics on total species recorded in associations	106
Table 24: Synoptic Table of Association 1-9	161
Table 25: Synoptic Table of Association 10-14	167
Table 26: Phytosociological Table of Associations 1-5	175
Table 27: Phytosociological Table of Associations 6-9	185
Table 28: Phytosociological Table of Associations 10-12	203
Table 29: Phytosociological Table of Associations 13 and 14	207
Table 30: Full annotated species list	212