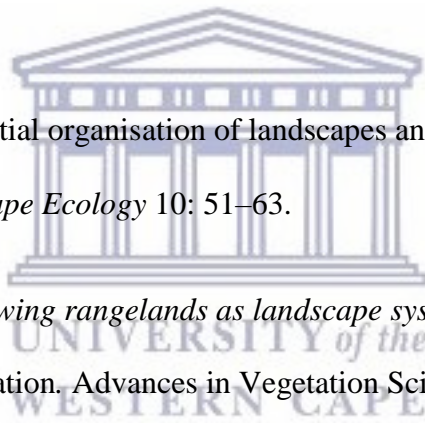


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6. Appendix

Appendix 1: Plant species list including growth and life form.

Number	Species	Growth Form	Life Form
1	<i>Asparagus suaveolens</i>	Perennial	Non-Succulent Shrub
2	<i>Psilocaulon subnodosum</i>	Perennial	Stem Succulent Shrub
3	Non-Succulent sp. 1	Perennial	Non-Succulent Shrub
4	<i>Sisyndite spartea</i>	Perennial	Non-Succulent Shrub
5	<i>Stipagrostis</i> sp. 1	Perennial	Grass
6	<i>Monsonia ciliatum</i>	Perennial	Stem Succulent Shrub
7	<i>Cheiridopsis denticulata</i>	Perennial	Leaf Succulent Shrub
8	<i>Mesembryanthemum</i> sp. 3	Perennial	Leaf Succulent Shrub
9	<i>Mesembryanthemum</i> sp. 2	Perennial	Leaf Succulent Shrub
10	<i>Euphorbia mauritiana</i>	Perennial	Stem Succulent Shrub
11	<i>Euphorbia gregaria</i>	Perennial	Stem Succulent Shrub
12	<i>Mesembryanthemum</i> sp. 1	Perennial	Leaf Succulent Shrub
13	<i>Mesembryanthemum nodiflorum</i>	Perennial	Leaf Succulent Shrub
14	<i>Stipagrostis obtusa</i>	Perennial	Grass
15	<i>Galenia fruticosa</i>	Perennial	Leaf Succulent Shrub
16	Stem Succulent sp. 1	Perennial	Stem Succulent Shrub
17	<i>Aptosimum spinescens</i>	Perennial	Non-Succulent Shrub
18	<i>Hermannia</i> sp. 1	Perennial	Non-Succulent Shrub
19	Non-succulent sp. 2	Perennial	Non-Succulent Shrub
20	<i>Hoodia gordonii</i>	Perennial	Stem Succulent Shrub
21	<i>Aridaria</i> sp. 1	Perennial	Leaf Succulent Shrub
22	<i>Eriocephalus namaquensis</i>	Perennial	Non-Succulent Shrub
23	<i>Tylecodon wallichi</i>	Perennial	Stem Succulent Shrub
24	<i>Lycium amoenum</i>	Perennial	Leaf Succulent Shrub
25	<i>Lycium cinereum</i>	Perennial	Leaf Succulent Shrub

26		Perennial	Stem Succulent Shrub
27	<i>Crassula muscosa</i>	Perennial	Leaf Succulent Shrub
28	<i>Lycium bosciifolium</i>	Perennial	Non-Succulent Shrub
29	<i>Psilocaulon dinteri</i>	Perennial	Leaf Succulent Shrub
30	<i>Polymita albiflora</i>	Perennial	Leaf Succulent Shrub
31	<i>Euphorbia rhombifolia</i>	Perennial	Stem Succulent Shrub
32	<i>Ruschia</i> sp. 1	Perennial	Leaf Succulent Shrub
33	Leaf Succulent sp. 1	Perennial	Leaf Succulent Shrub
34	<i>Mesembryanthemum lepratarthron</i>	Perennial	Leaf Succulent Shrub
35	<i>Astridia</i> sp. 1	Perennial	Leaf Succulent Shrub
36	<i>Lampranthus</i> sp. 2	Perennial	Leaf Succulent Shrub
37	<i>Ruschia pauciflora</i>	Perennial	Leaf Succulent Shrub
38	<i>Ruschia</i> sp. 2	Perennial	Leaf Succulent Shrub
39	Non-succulent sp. 3	Perennial	Non-Succulent Shrub
40	<i>Salsola tuberculata</i>	Perennial	Leaf Succulent Shrub
41	<i>Stoeberia beetzii</i>	Perennial	Leaf Succulent Shrub
42	<i>Vachellia karoo</i>	Perennial	Non-Succulent Shrub
43	<i>Stipagrostis</i> sp. 2	Perennial	Grass
44	<i>Leipoldita schultzei</i>	Perennial	Leaf Succulent Shrub
45	<i>Stipagrostis</i> sp. 3	Perennial	Grass
46	<i>Searsia</i> sp. 1	Perennial	Tree
47	<i>Drosanthemum ramosissimum</i>	Perennial	Leaf Succulent Shrub
48	<i>Stipagrostis</i> sp. 1	Perennial	Grass
49	<i>Lampranthus</i> sp. 1	Perennial	Leaf Succulent Shrub
50	Non-succulent sp. 4	Perennial	Non-Succulent Shrub
51	Non-succulent sp. 5	Perennial	Non-Succulent Shrub
52	<i>Stipagrostis ciliata</i>	Perennial	Grass
53	Non-succulent sp. 6	Perennial	Non-Succulent Shrub
54	<i>Zygophyllum retrofractum</i>	Perennial	Leaf Succulent Shrub

Appendix 2: The similarity matrix between sites using plant species and abundance.

	D1 A	D1 B	D1 C	D2 A	D2 B	D2 C	D3 A	D3 B	D3 C	E1 A	E1 B	E1 C	E2 A	E2 B	E2 C	E3 A	E3 B	E3 C	SK 1A	SK 1B	SK 1C	SK 2A	SK 2B	SK 2C	SK 3A	SK 3B	SK 3C	
D1 A	10	0																										
D1 B	57	10																										
D1 C	73	46	10																									
D2 A	31	53	33	10																								
D2 B	22	50	24	53	10																							
D2 C	35	32	50	33	43	10																						
D3 A	50	44	53	35	45	67	10																					
D3 B	40	47	29	50	67	50	53	10																				
D3 C	43	38	46	53	60	63	67	71	10																			
E1 A	62	67	83	43	32	33	59	38	53	10																		
E1 B	80	50	89	36	25	40	57	31	50	73	10																	
E1 C	50	43	55	15	11	24	38	13	29	62	60	10																
E2 A	48	43	40	27	30	23	40	25	35	55	42	29	10															



E2 B	35	42	25	22	61	36	57	50	42	33	27	24	46	100													
E2 C	62	67	67	43	42	33	59	38	53	86	73	46	64	44	100												
E3 A	50	44	53	35	36	48	70	42	44	71	57	38	48	38	71	100											
E3 B	40	37	33	31	32	47	48	50	44	38	35	24	29	27	38	55	100										
E3 C	40	36	42	38	38	56	75	43	55	48	44	30	34	40	48	58	55	100									
SK 1A	50	57	36	31	22	47	63	40	29	46	40	33	29	35	46	63	48	50	100								
SK 1B	53	47	29	25	19	20	32	33	24	38	31	27	33	40	38	32	29	26	53	100							
SK 1C	80	33	67	18	13	27	43	15	33	55	75	60	42	40	55	43	26	33	40	46	100						
SK 2A	40	47	29	25	19	20	32	33	24	38	31	27	42	40	38	32	36	43	53	44	31	100					
SK 2B	53	35	29	13	19	20	21	33	12	25	31	27	33	50	25	32	36	26	40	44	46	56	100				
SK 2C	33	38	17	16	20	14	21	22	15	24	18	17	48	41	32	29	27	31	33	44	27	67	44	100			
SK 3A	60	45	42	29	23	32	42	35	36	57	44	30	55	40	57	50	42	36	40	43	44	43	43	38	100		
SK 3B	47	53	38	33	35	36	38	50	42	44	40	24	38	45	44	48	53	40	47	50	27	60	60	48	48	100	
SK 3C	47	42	25	22	17	18	29	30	21	33	27	35	38	45	33	29	33	32	47	60	40	60	70	55	48	64	100

Appendix 3: The 11 soil surface assessment variables and the resultant indices for the study sites along the Desert biome and Succulent Karoo biome boundary.

	D1 A	D1 B	D1 C	D2 A	D2 B	D2 C	D3 A	D3 B	D3 C	E1 A	E1 B	E1 C	E2 A	E2 B	E2 C	E3 A	E3 B	E3 C	SK 1A	SK 1B	SK 1C	SK 2A	SK 2B	SK 2C	SK 3A	SK 3B	SK 3C
Rainsplash Protection (1-5)	1	1	2	3	2	1	2	2	2	2	2	1	3	1	2	2	2	2	1	2	2	2	2	2	2	2	3
Perennial veg. Cover (1-4)	1	1	1	2	2	1	2	2	2	2	1	1	3	1	2	2	2	2	1	2	1	2	2	2	2	2	2
Litter (1-10)	4	4	4	3	3	2	3	3	4	5	6	5	5	3	4	4	3	4	4	6	3	5	5	4	5	6	5
Cryptogam / Cover (0-4)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crust brokenness (0-4)	4	4	1	2	1	3	1	4	3	3	3	4	2	1	1	2	2	1	4	3	3	1	1	2	3	3	2
Soil erosion / Type	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Deposited materials (1-4)	1	1	4	3	1	2	2	3	2	2	1	1	2	1	2	2	2	2	1	2	1	2	2	2	2	2	2
Soil surface roughness (1-5)	5	5	4	1	1	1	4	3	2	4	5	5	3	5	4	4	4	4	5	4	5	4	4	4	4	4	4
Surface nature/resistance (5-1)	1	1	1	2	2	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Slake test (0-4)	2	1	1	2	1	2	1	1	1	1	1	1	2	1	1	2	1	1	2	2	2	1	2	2	2	2	3
Texture (1-4)	3	3	3	3	3	3	3	2	3	2	3	2	2	3	2	3	3	3	3	2	3	3	2	3	3	3	2
Soil Stability	16	16	16	18	14	15	13	17	17	17	18	17	17	12	15	16	14	13	17	19	16	15	16	16	18	18	18
Calc. of origin of litter / Cryptogam (located/transported)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calc. of decomposition / Cryptogam degree	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Calc. of Litter	8	9	10	8	7	5	8	7	10	12	14	12	11	8	10	9	8	8	9	13	7	11	11	10	13	14	12
Calc. of infiltration	9	9	9	7	8	9	8	9	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Infiltration/Runoff	28	28	28	23	22	21	26	22	26	31	34	32	31	28	30	29	27	28	30	34	28	31	32	30	34	34	33
Nutrient Cycling status	14	15	15	11	10	8	14	11	14	18	20	18	17	14	16	15	14	14	15	19	13	17	18	16	19	20	18

Soil Stability%	41	40	39	44	34	38	33	41	42	42	45	44	43	30	36	39	34	32	41	47	39	37	39	41	45	45	45
Infiltration/Runoff%	49	50	50	41	39	37	45	39	45	55	60	57	54	48	53	51	47	48	52	59	50	55	56	53	59	60	57
Nutrient Cycling status%	34	35	36	26	23	18	32	25	34	41	47	43	39	33	38	35	32	32	35	45	31	40	41	37	44	46	41



Appendix 4: Record of data captured over the study period including both individual captures (black) and recaptures (red).

Date	Label	Site	Rep Number	ID - Species	Gender	Reproductive Status	Breeding	Weight (g)	Body Length (mm)
21/8/2017	A1	D	2	<i>Gerbillurus paeba</i>	F	J	Y	25	185
21/8/2017	A2	D	1	<i>Gerbillurus paeba</i>	F	J	N	24,1	165
22/8/2017	B1	D	3	<i>Gerbillurus paeba</i>	M	A	N	31	130
22/8/2017	A1	D	2	<i>Gerbillurus paeba</i>	F	J	Y	25	185
22/8/2017	A2	D	1	<i>Gerbillurus paeba</i>	F	J	N	24,1	165
22/8/2017	B2	D	1	<i>Gerbillurus paeba</i>	M	A	Y	25,9	225
22/8/2017	B3	D	1	<i>Gerbillurus paeba</i>	M	J	Y	25,8	180
22/8/2017	B4	E	1	<i>Gerbillurus paeba</i>	M	J	N	16,7	185
23/8/2017	A1	D	2	<i>Gerbillurus paeba</i>	F	J	Y	25	185
23/8/2017	C1	D	2	<i>Gerbillurus paeba</i>	M	J	N	28,1	190
23/8/2017	C2	D	2	<i>Gerbillurus paeba</i>	F	J	N	27,5	195
23/8/2017	A2	D	1	<i>Gerbillurus paeba</i>	F	J	N	24,1	165
23/8/2017	B2	D	1	<i>Gerbillurus paeba</i>	M	A	Y	25,9	225
23/8/2017	B3	D	1	<i>Gerbillurus paeba</i>	M	J	Y	25,8	180
23/8/2017	C3	D	1	<i>Gerbillurus paeba</i>	M	A	Y	35	245
23/8/2017	C4	E	3	<i>Gerbillurus paeba</i>	M	A	Y	35	220
23/8/2017	C5	E	3	<i>Gerbillurus paeba</i>	M	A	Y	33,4	210
23/8/2017	C6	E	1	<i>Gerbillurus paeba</i>	F	J	N	30	220
23/8/2017	C7	E	1	<i>Gerbillurus paeba</i>	M	A	Y	36,7	250
23/8/2017	C8	E	1	<i>Gerbillurus paeba</i>	F	J	N	21,2	205
23/8/2017	C9	E	1	<i>Gerbillurus paeba</i>	M	J	N	31,1	210
24/8/2017	B3	D	1	<i>Gerbillurus paeba</i>	M	J	Y	25,8	180
24/8/2017	D1	E	3	<i>Elephantulus rupestris</i>	F	A	N	36,7	205
24/8/2017	C6	E	1	<i>Gerbillurus paeba</i>	F	J	N	30	220
25/8/2017	C1	D	2	<i>Gerbillurus paeba</i>	M	J	N	28,1	190
25/8/2017	E1	D	1	<i>Gerbillurus paeba</i>	F	J	N	31	225
25/8/2017	E2	E	2	<i>Gerbillurus paeba</i>	M	J	N	9,8	130
25/8/2017	E3	E	2	<i>Gerbillurus paeba</i>	M	A	Y	33	205
25/8/2017	C7	E	1	<i>Gerbillurus paeba</i>	M	A	Y	36,7	250
25/8/2017	E4	E	1	<i>Gerbillurus paeba</i>	M	A	Y	32,8	210

26/8/2017	C2	D	2	<i>Gerbillurus paeba</i>	F	J	N	27,5	195
26/8/2017	C5	E	3	<i>Gerbillurus paeba</i>	M	A	Y	33,4	210
26/8/2017	F1	E	3	<i>Gerbillurus paeba</i>	M	A	Y	34,7	225
26/8/2017	E3	E	2	<i>Gerbillurus paeba</i>	M	A	Y	33	205
26/8/2017	F2	E	2	<i>Gerbillurus paeba</i>	M	A	N	33,8	220
26/8/2017	B4	E	1	<i>Gerbillurus paeba</i>	M	J	N	16,7	185
27/8/2017	G1	D	1	<i>Gerbillurus paeba</i>	F	J	N	17	205
27/8/2017	C5	E	3	<i>Gerbillurus paeba</i>	M	A	Y	33,4	210
27/8/2017	C4	E	3	<i>Gerbillurus paeba</i>	M	A	Y	35	220
27/8/2017	E2	E	2	<i>Gerbillurus paeba</i>	M	J	N	9,8	130
28/8/2017	C5	E	3	<i>Gerbillurus paeba</i>	M	A	Y	33,4	210
28/8/2017	C4	E	3	<i>Gerbillurus paeba</i>	M	A	Y	35	220
28/8/2017	F2	E	2	<i>Gerbillurus paeba</i>	M	A	N	33,8	220
28/8/2017	E2	E	2	<i>Gerbillurus paeba</i>	M	J	N	9,8	130
28/8/2017	C7	E	1	<i>Gerbillurus paeba</i>	M	A	Y	36,7	250
28/8/2017	E4	E	1	<i>Gerbillurus paeba</i>	M	A	Y	32,8	210
28/8/2017	H1	SK	3	<i>Elephantulus rupestris</i>	M	A	Y	41,4	195
28/8/2017	H2	SK	3	<i>Elephantulus rupestris</i>	F	A	N	36,5	200
28/8/2017	H3	SK	3	<i>Elephantulus rupestris</i>	M	J	N	36	200
28/8/2017	H4	SK	3	<i>Gerbillurus paeba</i>	F	J	Y	27,3	215
28/8/2017	H2	SK	3	<i>Elephantulus rupestris</i>	F	A	N	36,5	200
28/8/2017	H4	SK	3	<i>Gerbillurus paeba</i>	F	J	Y	27,3	215
28/8/2017	H5	SK	2	<i>Gerbillurus paeba</i>	F	J	N	18,3	215
28/8/2017	H6	SK	2	<i>Elephantulus rupestris</i>	M	A	Y	42,5	230
28/8/2017	H7	SK	1	<i>Gerbillurus paeba</i>	M	J	N	31,4	225
28/8/2017	H8	SK	1	<i>Elephantulus rupestris</i>	M	A	N	43,3	220
28/8/2017	H9	SK	1	<i>Elephantulus rupestris</i>	F	A	N	42,4	230
29/8/2017	I3	SK	1	<i>Gerbillurus paeba</i>	F	J	Y	30,3	230
29/8/2017	I4	SK	1	<i>Gerbillurus paeba</i>	M	J	N	29,3	215
29/8/2017	H8	SK	1	<i>Elephantulus rupestris</i>	M	A	N	43,3	220
29/8/2017	I1	SK	3a	<i>Gerbillurus paeba</i>	F	J	N	28,3	210
29/8/2017	I2	SK	3a	<i>Elephantulus rupestris</i>	F	A	Y	33,3	205

30/8/2017	H2	SK	3	<i>Elephantulus rupestris</i>	F	A	N	36,5	200
30/8/2017	H4	SK	3	<i>Gerbillurus pæba</i>	F	J	Y	27,3	215
30/8/2017	J2	SK	2	<i>Gerbillurus pæba</i>	M	J	Y	18	215
30/8/2017	H5	SK	2	<i>Gerbillurus pæba</i>	F	J	N	18,3	215
30/8/2017	H6	SK	2	<i>Elephantulus rupestris</i>	M	A	Y	42,5	230
30/8/2017	I3	SK	1	<i>Gerbillurus pæba</i>	F	J	Y	30,3	230
30/8/2017	I4	SK	1	<i>Gerbillurus pæba</i>	M	J	N	29,3	215
30/8/2017	H8	SK	1	<i>Elephantulus rupestris</i>	M	A	N	43,3	220
30/8/2017	H9	SK	1	<i>Elephantulus rupestris</i>	F	A	N	42,4	230
30/8/2017	I1	SK	3a	<i>Gerbillurus pæba</i>	F	J	N	28,3	210
30/8/2017	J1	SK	3a	<i>Gerbillurus pæba</i>	F	A	Y	33,2	250
31/8/2017	H3	SK	3	<i>Elephantulus rupestris</i>	M	J	N	36	200
31/8/2017	H4	SK	3	<i>Gerbillurus pæba</i>	F	J	Y	27,3	215
31/8/2017	K5	SK	3	<i>Gerbillurus pæba</i>	M	J	Y	17	160
31/8/2017	K6	SK	3	<i>Desmodillus auricularis</i>	M	A	Y	37,1	170
31/8/2017	K7	SK	3	<i>Elephantulus rupestris</i>	M	A	Y	41	225
31/8/2017	K3	SK	2	<i>Gerbillurus pæba</i>	F	J	Y	26,4	205
31/8/2017	K4	SK	2	<i>Elephantulus rupestris</i>	M	A	Y	41,3	230
31/8/2017	J2	SK	2	<i>Gerbillurus pæba</i>	M	J	Y	18	215
31/8/2017	I3	SK	1	<i>Gerbillurus pæba</i>	F	J	Y	30,3	230
31/8/2017	I4	SK	1	<i>Gerbillurus pæba</i>	M	J	N	29,3	215
31/8/2017	H8	SK	1	<i>Elephantulus rupestris</i>	M	A	N	43,3	220
31/8/2017	H9	SK	1	<i>Elephantulus rupestris</i>	F	A	N	42,4	230
31/8/2017	K1	SK	1	<i>Gerbillurus pæba</i>	M	J	Y	33,8	225
31/8/2017	K2	SK	1	<i>Elephantulus rupestris</i>	M	J	N	36	205
31/8/2017	I1	SK	3a	<i>Gerbillurus pæba</i>	F	J	N	28,3	210
04/05/2018	A1	E	2	<i>Desmodillus auricularis</i>	F	A	N	54	105
04/05/2018	A2	SK	3	<i>Elephantulus rupestris</i>	M	A	N	48	117
04/05/2018	A3	SK	3	<i>Gerbillurus pæba</i>	F	J	N	35	105
04/05/2018	A4	SK	2	<i>Gerbillurus pæba</i>	F	A	Y	42	90
04/05/2018	A5	SK	2	<i>Elephantulus rupestris</i>	F	A	Y	46	100

04/05/2018	A6	SK	2	<i>Elephantulus rupestris</i>	M	J	N	45	95
05/05/2018	B1	E	2	<i>Desmodillus auricularis</i>	M	A	Y	53	115
05/05/2018	A3	SK	3	<i>Gerbillurus paeba</i>	F	J	N	35	105
05/05/2018	A4	SK	2	<i>Gerbillurus paeba</i>	F	A	Y	42	90
05/05/2018	A6	SK	2	<i>Elephantulus rupestris</i>	M	J	N	45	95
06/05/2018	A4	SK	3	<i>Gerbillurus paeba</i>	F	A	Y	42	90
06/05/2018	A6	SK	2	<i>Elephantulus rupestris</i>	M	J	N	45	95
06/05/2018	C1	SK	2	<i>Gerbillurus paeba</i>	M	J	Y	35	85
07/05/2018	A3	SK	3	<i>Gerbillurus paeba</i>	F	J	N	35	105
07/05/2018	A4	SK	2	<i>Gerbillurus paeba</i>	F	A	Y	42	90
07/05/2018	A6	SK	2	<i>Elephantulus rupestris</i>	M	J	N	45	95
07/05/2018	D1	SK	2	<i>Gerbillurus paeba</i>	M	A	Y	37	100
07/05/2018	D2	SK	2	<i>Gerbillurus paeba</i>	M	A	Y	40	100
07/05/2018	D3	SK	1	<i>Elephantulus rupestris</i>	F	A	Y	63	110
08/05/2018	A5	SK	2	<i>Elephantulus rupestris</i>	F	A	Y	46	100
08/05/2018	E1	SK	2	<i>Gerbillurus paeba</i>	F	J	Y	35	93
08/05/2018	E2	SK	2	<i>Elephantulus rupestris</i>	M	A	N	43	100
08/05/2018	A6	SK	2	<i>Elephantulus rupestris</i>	M	J	N	45	95
08/05/2018	A3	SK	1	<i>Gerbillurus paeba</i>	F	J	N	35	105
09/05/2018	F1	SK	2	<i>Gerbillurus paeba</i>	F	A	Y	37	90
09/05/2018	A6	SK	2	<i>Elephantulus rupestris</i>	M	J	N	45	95
09/05/2018	A3	SK	3	<i>Gerbillurus paeba</i>	F	J	N	35	105
09/05/2018	F2	E	3	<i>Gerbillurus paeba</i>	M	J	Y	40	90
10/05/2018	A4	SK	2	<i>Gerbillurus paeba</i>	F	A	Y	42	90
10/05/2018	E2	SK	2	<i>Elephantulus rupestris</i>	M	A	N	43	100
10/05/2018	G1	SK	1	<i>Elephantulus rupestris</i>	M	A	N	58	95