

Table S1: Species abundance of nymphs recorded across 3 seasons at 5 dams in the Matobo World heritage site

	Maleme	Togwana	Mtsheli	Mesilume	Mpopoma	Total
Cold Dry Season						
Aeshnidae	1	0	2	1	0	4
Gomphidae	5	3	40	9	17	74
Corduliidae	3	0	0	0	0	3
Libellulidae	5	7	7	4	4	27
Macromiidae	0	0	1	0	0	1
Coenagrionidae	6	14	22	7	6	55
Platycnemididae	0	1	0	1	0	2
Hot and Dry Season						
Aeshnidae	1	0	0	0	0	1
Gomphidae	9	17	4	9	1	40
Corduliidae	0	0	0	0	0	0
Libellulidae	27	3	1	2	2	35
Macromiidae	0	0	0	0	0	0
Coenagrionidae	24	14	12	5	4	59
Platycnemididae	1	0	0	0	2	3
Hot wet						
Aeshnidae	0	4	19	0	0	23
Gomphidae	3	2	17	0	30	52
Corduliidae	0	0	0	0	0	0
Libellulidae	11	8	13	0	1	33
Macromiidae	0	0	0	0	0	0
Coenagrionidae	4	4	5	0	1	14
Platycnemididae	1	0	0	0	0	1

Table S2: Odonate abundance and Dragonfly Biotic Index (DBI) of adults recorded Cold Dry Season in 5 dams in the Matobo heritage site

	DBI Index	Maleme	Mesilume	Mpopoma	Mtsheleli	Togwana	Total
Aeshnidae							
<i>Anax ephippiger</i>	2	0	1	3	10	6	20
<i>Anax imperator</i>	1	0	0	3	0	6	9
Coenagrionidae							
<i>Pseudagrion massaicum</i>	1	0	0	2	15	7	24
<i>Pseudagrion sjoestedti</i>	7	0	0	4	0	2	6
<i>Ceriagrion glabrum</i>	0	3	0	14	0	7	24
<i>Aciagrion sp</i>		0	1	1	2	0	4
Gomphidae							
<i>Ceratogomphus pictus</i>	2	0	0	0	0	6	6
<i>Ictinogomphus ferox</i>	2	3	0	0	0	1	4
Libellulidae							
<i>Orthetrum chrysostigma</i>	2	8	2	11	0	10	31
<i>Gomph arteriosa</i>	0	9	13	26	19	18	85
<i>Trithemis annulata</i>	1	0	1	3	0	9	13
<i>Crocothemis erythraea</i>	0	6	16	7	10	6	45
<i>Nesciothemis farinosa</i>	1	0	0	11	11	6	28
<i>Brachythemis leucosticta</i>	2	14	12	13	0	16	55
<i>Urothemis edwardsii</i>	2	0	1	6	6	1	14
<i>Orthetrum trinacria</i>	1	6	0	6	0	10	22
<i>Diplacodes luminans</i>	3	0	0	5	0	5	10
<i>Pantala flavescens</i>	0	15	0	19	4	11	49
<i>Orthetrum abbotti</i>	2	2	0	9	2	5	18
<i>Orthetrum julia</i>	1/3	1	0	8	0	2	11
<i>Rhyothemis semihyalina</i>	1	0	1	0	0	0	1
<i>Acisoma sp</i>		0	0	4	0	0	4
<i>Crocothemis sanguinolenta</i>	3	0	2	6	0	9	17
<i>Trithemis stictica</i>	1	0	0	2	0	0	2
<i>Urothemis assignata</i>	3	0	0	0	0	3	3
<i>Palpopleura deceptor</i>	4	0	0	0	0	0	0
<i>Orthetrum caffrum</i>	3	0	0	3	0	0	3
<i>Palpopleura portia</i>	2	0	0	1	0	0	1
<i>Trithemis kirbyi</i>	0	0	0	3	0	0	3
<i>Trithemis aconita</i>	4	0	0	0	0	4	4
<i>Trithemis furva</i>	0	0	0	0	0	5	5
<i>Trithemis hecate</i>	4	0	3	6	3	4	16
Lestidae							
<i>Lestes sp</i>		12	7	0	4	0	23
Macromiidae							
<i>Phyllomacromia contumax</i>	2	0	0	0	0	0	0
Platycnemididae							
<i>Elatoneura glauca</i>	1	0	6	0	5	0	11

Table S3: Odonate abundance and Dragonfly Biodiversity Index (DBI) of adults recorded hot and dry season in 5 dams in the Matobo heritage site

	DBI Index	Maleme	Mesilume	Mpopoma	Mtsheleli	Togwana	Total
Aeshnidae							
<i>Anax ephippiger</i>	2	1	0	0	0	3	4
<i>Anax imperator</i>	1	0	0	5	3	0	8
Coenagrionidae							
<i>Pseudagrion massaicum</i>	1	0	8	7	0	0	15
<i>Pseudagrion sjoestedti</i>	7	0	0	0	2	0	2
<i>Ceriagrion glabrum</i>	0	0	3	7	5	5	20
<i>Aciagrion sp</i>		0	0	2	1	2	5
Gomphidae							
<i>Ceratogomphus pictus</i>	2	0	0	6	0	0	6
<i>Ictinogomphus ferox</i>	2	0	0	2	0	0	2
Libellulidae							
<i>Orthetrum chrysostigma</i>	2	0	2	18	9	23	52
<i>Trithemis arteriosa</i>	0	9	6	43	12	14	84
<i>Trithemis annulata</i>	1	0	0	0	0	0	0
<i>Crocothemis erythraea</i>	0	0	9	25	9	20	63
<i>Nesciothemis farinosa</i>	1	0	0	12	0	12	24
<i>Brachythemis leucosticta</i>	2	17	7	13	30	16	83
<i>Urothemis edwardsii</i>	2	2	0	0	11	0	13
<i>Orthetrum trinacria</i>	1	0	0	2	0	0	2
<i>Diplacodes luminans</i>	3	0	3	3	3	4	13
<i>Pantala flavescens</i>	0	4	0	3	7	9	23
<i>Orthetrum abbotti</i>	2	2	1	5	4	0	12
<i>Orthetrum julia</i>	1/3	0	0	0	0	1	1
<i>Rhyothemis semihyalina</i>	1	0	0	0	0	0	0
<i>Acisoma sp</i>		0	0	0	0	4	4
<i>Crocothemis sanguinolenta</i>	3	0	0	0	4	2	6
<i>Trithemis stictica</i>	1	0	1	0	0	0	1
<i>Urothemis assignata</i>	3	0	0	0	0	4	4
<i>Palpopleura deceptor</i>	4	0	0	0	0	0	0
<i>Orthetrum caffrum</i>	3	0	0	0	0	0	0
<i>Palpopleura portia</i>	2	0	0	0	0	0	0
<i>Trithemis kirbyi</i>	0	0	0	0	0	0	0
<i>Trithemis aconita</i>	4	0	0	8	3	2	13
<i>Trithemis furva</i>	0	0	0	0	2	0	2
<i>Trithemis hecate</i>	4	0	6	8	0	17	31
<i>Lestes sp</i>		7	9	9	0	6	31
Macromiidae							
<i>Phyllomacromia contumax</i>	2	0	0	0	0	0	0
Platycnemididae							
<i>Elatoneura glauca</i>	1	3	5	4	0	0	12

Table S4: Odonate abundance and Dragonfly Biotic Index (DBI) of adults recorded hot and wet season in 5 dams in the Matobo heritage site.

	DBI Index	Maleme	Mesilume	Mpopoma	Mtsheli	Togwana	Total
Aeshnidae							
<i>Anax ephippiger</i>	2	5	3	3	10	4	25
<i>Anax imperator</i>	1	0	4	2	15	4	25
Coenagrionidae							
<i>Pseudagrion massaicum</i>	1	7	14	16	4	2	43
<i>Pseudagrion sjoestedti</i>	7	5	5	10	11	2	33
<i>Ceragrion glabrum</i>	0	6	7	16	2	2	33
<i>Aciagrion sp</i>		4	13	2	2	4	25
Gomphidae							
<i>Ceratogomphus pictus</i>	2	1	10	6	2	2	21
<i>Ictinogomphus ferox</i>	2	8	0	9	11	1	29
Libellulidae							
<i>Orthetrum chrysostigma</i>	2	5	12	17	8	8	50
<i>Trithemis arteriosa</i>	0	8	20	26	26	20	100
<i>Trithemis annulata</i>	1	1	5	10	8	4	28
<i>Crocothemis erythraea</i>	0	10	17	12	10	25	74
<i>Nesciothemis farinosa</i>	1	18	9	15	7	4	53
<i>Brachythemis leucosticta</i>	2	25	3	30	29	81	168
<i>Urothemis edwardsii</i>	2	5	7	28	5	4	49
<i>Orthetrum trinacria</i>	1	5	0	4	3	1	13
<i>Diplacodes luminans</i>	3	3	0	2	8	2	15
<i>Pantala flavescens</i>	0	15	16	18	20	14	83
<i>Orthetrum abbotti</i>	2	4	3	4	1	2	14
<i>Orthetrum julia</i>	1/3	3	7	2	0	4	16
<i>Rhyothemis semihyalina</i>	1	1	6	4	3	2	16
<i>Acisoma sp</i>		0	2	0	3	4	9
<i>Crocothemis sanguinolenta</i>	3	4	2	3	1	8	18
<i>Trithemis stictica</i>	1	3	8	0	5	7	23
<i>Urothemis assignata</i>	3	0	6	22	4	2	34
<i>Palpopleura deceptor</i>	4	2	1	0	2	1	6
<i>Orthetrum caffrum</i>	3	3	4	8	5	3	23
<i>Palpopleura portia</i>	2	2	4	0	2	3	11
<i>Trithemis kirbyi</i>	0	2	3	8	8	6	27
<i>Trithemis aconita</i>	4	0	3	4	2	10	19
<i>Trithemis furva</i>	0	2	1	5	4	7	19
<i>Trithemis hecate</i>	4	12	12	4	2	10	40
Lestidae							
<i>Lestes sp</i>		12	11	5	0	5	33
Macromiidae							
<i>Phyllomacromia contumax</i>	2	0	0	2	4	3	9
Platycnemididae							
<i>Elatoneura glauca</i>	1	2	0	5	1	3	11

Table S5: The threats recorded at each of the 5 dams, using A Standard Lexicon for Biodiversity Conservation: Unified Classifications of Threats and Actions as described by Salafsky et al., (2008), in the Matobo heritage site (Where 0= Negligible, 1= Low, 2= Medium, 3= High)

Direct threats for 1st and 2nd level of classification	Mpopoma Dam	Mesilume Dam	Maleme Dam	Mtshelili Dam	Togwana Dam
Agriculture expansion& intensification					
Small-holder farming	0	0	0	0	0
Agro industry farming	0	0	0	0	0
Perennial non timber crops small holder plantations	0	0	0	0	0
Agro-industry plantations	0	0	0	0	0
Wood & pulp plantations small-holder plantations	0	0	0	0	0
Agro-industry plantations	0	0	0	0	0
Livestock farming & ranching nomadic grazing	0	0	0	0	0
Small-holder grazing, ranching or farming	0	2	2	2	2
Agro-industry grazing, ranching or farming	0	0	0	0	0
freshwater aquaculture	0	0	0	0	0
subsistence aquaculture	1	1	3	1	1
Industrial aquaculture	0	0	0	0	0
Residential & Commercial development					
Housing & urban areas	0	0	0	0	0
Commercial and industrial areas	0	0	0	0	0
Tourism and recreation areas	3	3	3	3	3
Energy production & mining					
Mining & quarrying	0	0	0	0	0
Renewable energy	0	0	0	0	0
Transportation & service corridors					
Roads and railroads	0	0	0	0	0
Over-exploitation, persecution & control of species					
Utility & service lines	0	0	0	0	0
hunting and trapping	0	0	0	0	0
persecution/control	0	0	0	0	0
fishing	1	1	3	1	1
logging	0	0	0	0	0
Human intrusions & disturbance					
Recreational activities	2	2	2	2	2
War, civil unrest & military exercises	0	0	0	0	0
Work & other activities	0	0	0	0	0
Natural system modifications					
Fire & Fire suppression	0	2	0	0	0
Dams and water managements	3	3	3	3	3
Other ecosystem modifications	0	0	0	0	0
Invasive & other problematic species & genes					

invasive alien species	2	2	2	2	2
problematic native species	0	0	0	0	0
introduced genetic material	0	0	0	0	0
Pollution					
Domestic and urban	0	0	0	0	0
Industrial and military effluents	0	0	0	0	0
Agricultural & forestry effluents	0	0	0	0	0
Garbage & solid waste	2	2	2	2	2
Air -borne pollutants	0	0	0	0	0
Noise pollution	0	0	0	0	0
Thermal pollution	0	0	0	0	0
Light pollution	0	0	0	0	0
Geological events					
Avalanches/landslides	0	0	0	0	0
Climate change & severe weather					
Habitat shifting & alteration	2	2	2	2	2
Drought	0	0	0	0	0
Temperature extremes	0	0	0	0	0
Storms & floods	0	0	0	0	0



Figure S1. invasive alien plant species observed at Mesilume dam (Source: K. Mafuwe 2016)



Figure S2. Reduced soil quality and plant cover as well as increased siltation, due to prolong cattle grazing and trampling, observed at Mesilume dam (Source: K. Mafuwe 2016)