

Supplementary

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Table S1 Phytoplankton candidate parameters.

category	Parameter number	biological parameters	Anticipated response to disturbance
community richness	M1	Number of phytoplankton taxa	↓
	M2	Total number of phytoplankton species	↓
	M3	Total number of nondiatom species	↓
	M4	Number of cyanobacteria species	↑
	M5	Number of green algal species	↓
	M6	Number of diatom species	↓
	M7	Shannon diversity index	↓
	M8	Margalef richness index	↓
community abundance	M9	Total phytoplankton density	↓
	M10	Diatom density	↓
	M11	Density of cyanobacteria	↑
	M12	Density of green algae	↓
	M13	Cryptophyta density	↓
	M14	Cyanobacterial biomass	↓
	M15	Chlorophyta biomass	↓
	M16	Bacillary biomass	↓
	M17	Cryptophyta biomass	↓
community composition	M18	Pielou uniformity index	↓
	M19	Proportion of dominant species %	↑
	M20	The top 3 dominant species account %	↑
	M21	Taxon individual density mean	↓
	M22	Cyanobacteria density %	↑
	M23	Green algae density %	↑
	M24	Diatom density %	↓
	M25	Cryptoalgae density %	↓
	M26	Cyanobacteria + green algae density %	↑
	M27	Green algae + diatom density %	↓
	M28	Total phytoplankton biomass	↓
	M29	Cyanobacteria biomass %	↑
	M30	Chlorophyta biomass %	↓
	M31	Diatom biomass %	↓
	M32	Cryptophyta biomass %	↓
stain resistance	M33	pollution tolerant diatoms	↑
	M34	Bloom algae density %	↑
	M35	Toxin-producing algae density %	↑

Table S2 Zooplankton candidate parameters.

category	serial number	Candidate indicators	Anticipated response to disturbance
community richness	Z1	Total number of zooplankton species	↓
	Z2	Number of protozoan species	↓
	Z3	Number of rotifer species	↑
	Z4	Number of cladoceran species	↓
	Z5	Number of copepod species	↓
	Z6	Shannon diversity index	↓
	Z7	Margalef richness index	↓
community abundance	Z8	Total zooplankton density	↓
	Z9	protozoa density	↓
	Z10	Rotifer density	↑
	Z11	Cladocera density	↓
	Z12	Copepod density	↓
	Z13	Total zooplankton biomass	↓
	Z14	Protozoan biomass	↓
	Z15	Rotifer biomass	↑
	Z16	Cladocera biomass	↓
	Z17	Copepod biomass	↓
	Z18	The sum of the densities of the top 3 Dominant species	↑
community composition	Z19	Protozoa density %	↓
	Z20	Rotifer density %	↑
	Z21	proportion of cladocerans %	↓
	Z22	Copepod density proportion %	↓
	Z23	Protozoan biomass %	↓
	Z24	Rotifer biomass %	↑
	Z25	Cladocera biomass %	↓
	Z26	Copepod biomass %	↓
	Z27	Pielou uniformity index	↓
	Z28	Proportion of dominant species %	↑
	Z29	The top 3 dominant species account %	↑
Nutritional structure	Z30	Filter feeders %	↓
	Z31	Protozoan predators%	↓
	Z32	Rotifer filter feeders%	↑
	Z33	Rotifer predators%	↑
	Z34	Small zooplankton filter feeders%	↓
	Z35	Small zooplankton predators%	↓
	Z36	Medium-sized zooplankton filter feeders%	↓
	Z37	Meso zooplankton predators%	↓
	Z38	Large zooplankton filter feeders%	↓
	Z39	Large zooplankton predators%	↓

Table S3 List of phytoplankton species.

groups	specie
Cyanophyta	<i>Chroococcus minor</i>
	<i>Microcystis aeruginosa</i>
	<i>Dactylococcopsis raphidioides</i>
	<i>Dactylococcopsis raphidioides f. falciformis</i>
	<i>Oscillatoria tenuis</i>
	<i>Oscillatoria amphibian</i>
	<i>Nostoc planctonicum</i>
	<i>Anabaena azotica</i>
	<i>Planktothrix agardhii</i>
	<i>Anabaena flosaquae</i>
	<i>Gloeocapsa sp.</i>
	<i>Chroococcus limneticus</i>
Bacillariophyta	<i>Pseudanabaena sp.</i>
	<i>Melosira granulata var. angustissima</i>
	<i>Melosira varians</i>
	<i>Asterionella formosa</i>
	<i>Cyclotella meneghiniana</i>
	<i>Cyclotella striata</i>
	<i>Synedra var. radians</i>
	<i>Cocconeis diminuta Pantocsek</i>
	<i>Achnanthes sp.</i>
	<i>Achnanthes exigua var. exigua</i>
	<i>Achnanthes minutissima var. cryptocephala</i>
	<i>Navicula hasta</i>
	<i>Gyrosigma attenuatum</i>
	<i>Cyclotella stelligera</i>
	<i>Fragilaria crotonensis</i>
	<i>Navicula cari</i>
	<i>Cymbella pusilla</i>
	<i>Cymbella perpusilla</i>
	<i>Nitzschia capitellata</i>
Chrysophyta	<i>Dinobryon divergens</i>
Cryptophyta	<i>Chroomonas acuta</i>
	<i>Cryptomonas erosa</i>
	<i>Cryptomonas rostrata</i>
	<i>Cryptomonas ouata</i>
	<i>Cryptomonas marssonii</i>
Pyrrophyta	<i>Ceratium sp.</i>
	<i>Ceratium hirundinella</i>
Euglenophyta	<i>Euglena sp.</i>
	<i>Phacus sp.</i>
	<i>Trachelomonas sp.</i>
	<i>Trachelomonas curta</i>

groups	specie
Chlorophyta	<i>Eudorina</i> sp.
	<i>Pandorina morum</i>
	<i>Chlorella vulgaris</i>
	<i>Coelastrum microporum</i>
	<i>Coelastrum microporum</i>
	<i>Ankistrodesmus angustus</i>
	<i>Ankistrodesmus acicularis</i>
	<i>Scenedesmus</i> sp.
	<i>Scenedesmus quadricauda</i>
	<i>Scenedesmus quadricauda</i> var <i>parvus</i>
	<i>Scenedesmus arcuatus</i>
	<i>Scenedesmus platydiscus</i>
	<i>Krichneriella obesa</i>
	<i>Closterium venus</i>
	<i>Closterium parvulum</i>
	<i>Closterium gracile</i>
	<i>Closterium diana</i>
	<i>Closterium kützingii</i> Breb
	<i>Pediastrum simplex</i>
	<i>Pediastrum biradiatum</i>
	<i>Pediastrum boryanum</i>
	<i>Pediastrum integrum</i>
	<i>Pediastrum duplex</i> var. <i>gracillimum</i> W.et.G.S West
	<i>Pediastrum simplex</i> var.
	<i>Oocystis borgei</i>
	<i>Oocystis elliptica</i>
	<i>Golenkinia paucispina</i>
	<i>Hormidium subtile</i>
	<i>Staurostrum planctonicum</i>
	<i>Quadrigula chodatii</i>
	<i>Characium limneticum</i>
	<i>Dictyosphaerium ehrenbergianum</i>
	<i>Hormidium flacidum</i>
	<i>Coelastrum proboscideum</i>
	<i>Actinastrum hantzschii</i>
	<i>Westella botryoides</i>
	<i>Monographidium circinale</i>
	<i>Crucigenia fenestrata</i>
	<i>Ankistrodesmus falcatus</i>
	<i>Quadrigula lawstris</i>

Table S4 List of zooplankton species.

group	specie
Phylum Protozoa	<i>Diffugia corona</i>
	<i>Vorticellidae</i>
Rotifera	<i>Brachionus calyciflorus</i> Pallas
	<i>Keratella cochlearis</i>
	<i>Keratella quadrata</i>
	<i>Polyarthra trigla</i>
	<i>Filinia longisela</i>
	<i>Brachionus angularis</i>
	<i>Brachionus urceus</i>
	<i>Brachionus forficula</i>
	<i>Trichocerca pusilla</i>
	<i>Asplanchna</i> sp.
	<i>Pompholyx complanata</i>
Cladocera	<i>Daphnia hyalina</i>
	<i>Diaphanosoma hrachyurum</i>
	<i>Diaphanosoma leuchtenbergianum</i>
	<i>Bosmina longirostris</i>
	<i>Chydorus sphaericus</i>
	<i>Alona rectangula</i>
	<i>Alona guttata</i>
	<i>Alona quadrangularis</i>
Copepoda	<i>Daphnia cucullata</i>
	<i>Nauplius larva</i>
	<i>Copepodite</i>
	<i>Cyclops</i>
	<i>Eucyclops serrulatus</i>
	<i>Thermocyclops dybowskii</i>
	<i>Sinodiaptomus</i> sp.
	<i>Calanus sinicus</i>
	<i>Cyclops strennus</i>
	<i>incongruens</i>

Table S5 Results of water quality survey in wet season.

site	WT(°C)	pH	DO(mg/L)	EC(μs/cm)	ORP(mV)	SD(cm)	SS(g/L)	CODMn(mg/L)	COD(mg/L)	TN(mg/L)	NH4+-N(mg/L)	TOC(mg/L)	TP(mg/L)
S1	23.8	8.66	8.38	596	77.5	0.47	0.036	3.77	53.00	0.35	0.28	7.84	0.045
S2	25.3	9.13	11.38	460	98.6	0.41	0.035	3.89	57.44	0.27	0.26	8.22	0.028
S3	22.3	8.46	7.39	492	85.3	0.52	0.032	4.37	47.44	1.47	0.18	8.02	0.042
S4	24.1	8.79	9.01	475	84.7	0.42	0.034	5.41	64.11	3.02	0.45	8.47	0.061
S5	22.9	8.45	7.04	489	86.7	0.59	0.037	4.57	52.63	1.93	0.38	8.02	0.036
S6	25.1	9.18	11.71	472	102.4	0.43	0.039	5.17	55.59	2.03	0.39	8.33	0.044
S7	25.2	9.05	10.05	494	93.8	0.58	0.057	3.89	57.81	2.16	0.28	8.88	0.048
S8	24.3	8.75	8.72	478	92.9	0.44	0.050	3.45	56.70	1.82	0.20	8.05	0.037
S9	25.1	8.74	8.59	609	100.3	0.56	0.033	3.17	57.44	1.94	0.41	7.85	0.045
S10	24.6	8.69	8.13	483	104.5	0.32	0.047	3.97	58.93	1.52	0.32	7.96	0.049
S11	23.4	8.94	10.42	729	95.9	0.49	0.010	4.41	50.78	1.41	0.28	8.77	0.034

Table S6 Results of water quality survey in dry season.

site	WT(°C)	pH	DO(mg/L)	EC(μs/cm)	ORP(mV)	SD(cm)	SS(g/L)	CODMn(mg/L)	COD(mg/L)	TN(mg/L)	NH4+-N(mg/L)	TOC(mg/L)	TP(mg/L)
S1	12.8	8.28	8.81	753	145.1	0.90	0.002	2.17	28.37	2.05	0.16	7.46	0.037
S2	14.3	8.83	9.53	714	290.1	1.05	0.004	3.69	25.78	1.74	0.28	6.64	0.023
S3	12.7	8.28	8.81	734	185.8	1.10	0.005	3.73	33.56	1.77	0.34	6.18	0.017
S4	13.4	8.50	8.83	721	227.3	1.20	0.016	3.49	21.33	1.57	0.17	6.42	0.046
S5	13.1	8.37	8.68	723	225.3	1.25	0.006	4.17	20.59	1.16	0.16	5.81	0.030
S6	14.1	7.97	9.14	715	287.4	1.10	0.021	4.41	26.15	1.77	0.15	6.72	0.027
S7	13.5	8.76	8.90	716	228.5	1.30	0.023	3.93	19.85	1.62	0.12	8.01	0.028
S8	13.7	8.54	9.00	720	227.8	1.25	0.021	4.09	21.33	1.67	0.05	6.59	0.020
S9	13.6	8.50	8.74	717	237.8	1.20	0.022	4.05	16.52	1.59	0.30	6.58	0.039
S10	13.7	8.39	8.26	724	156.1	1.05	0.023	3.65	18.00	1.58	0.10	6.58	0.020
S11	13.4	8.70	8.92	716	218.4	1.40	0.017	3.81	15.41	1.44	0.16	6.71	0.031

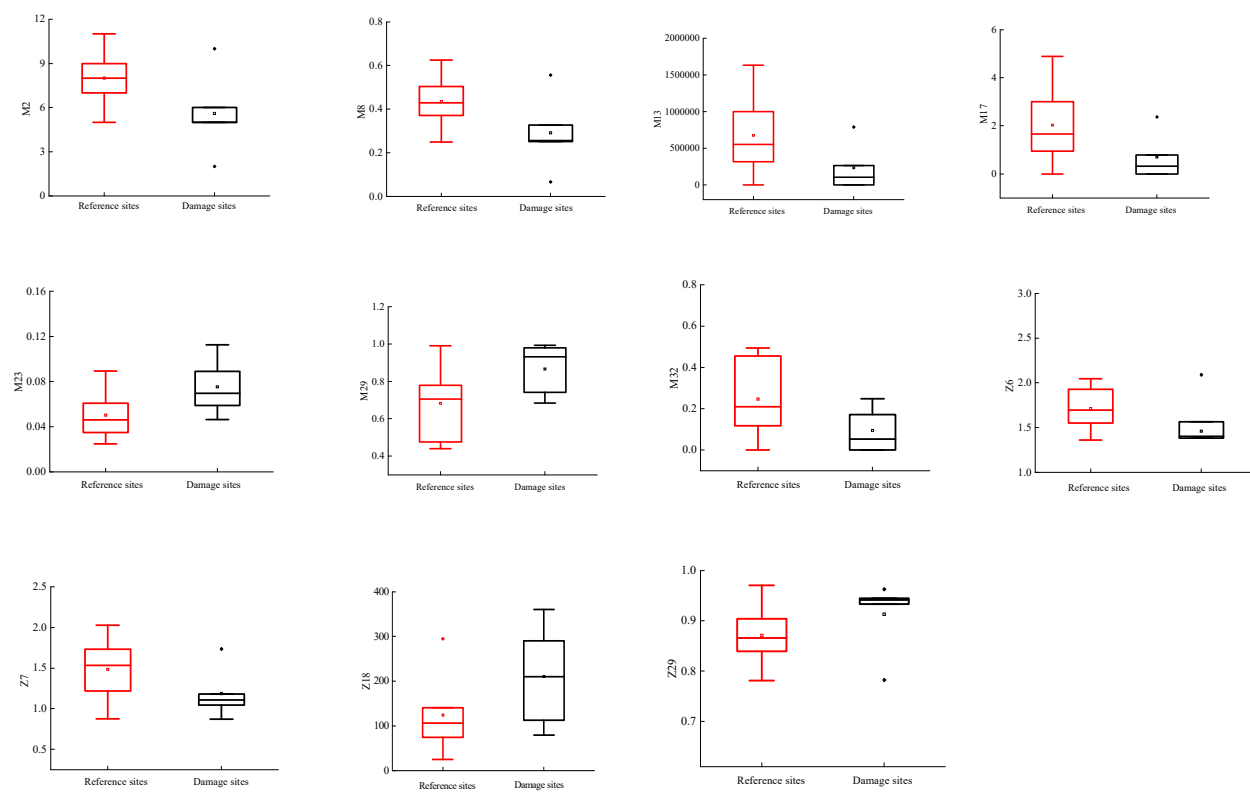


Figure S1 Box plot analysis during the wet season.

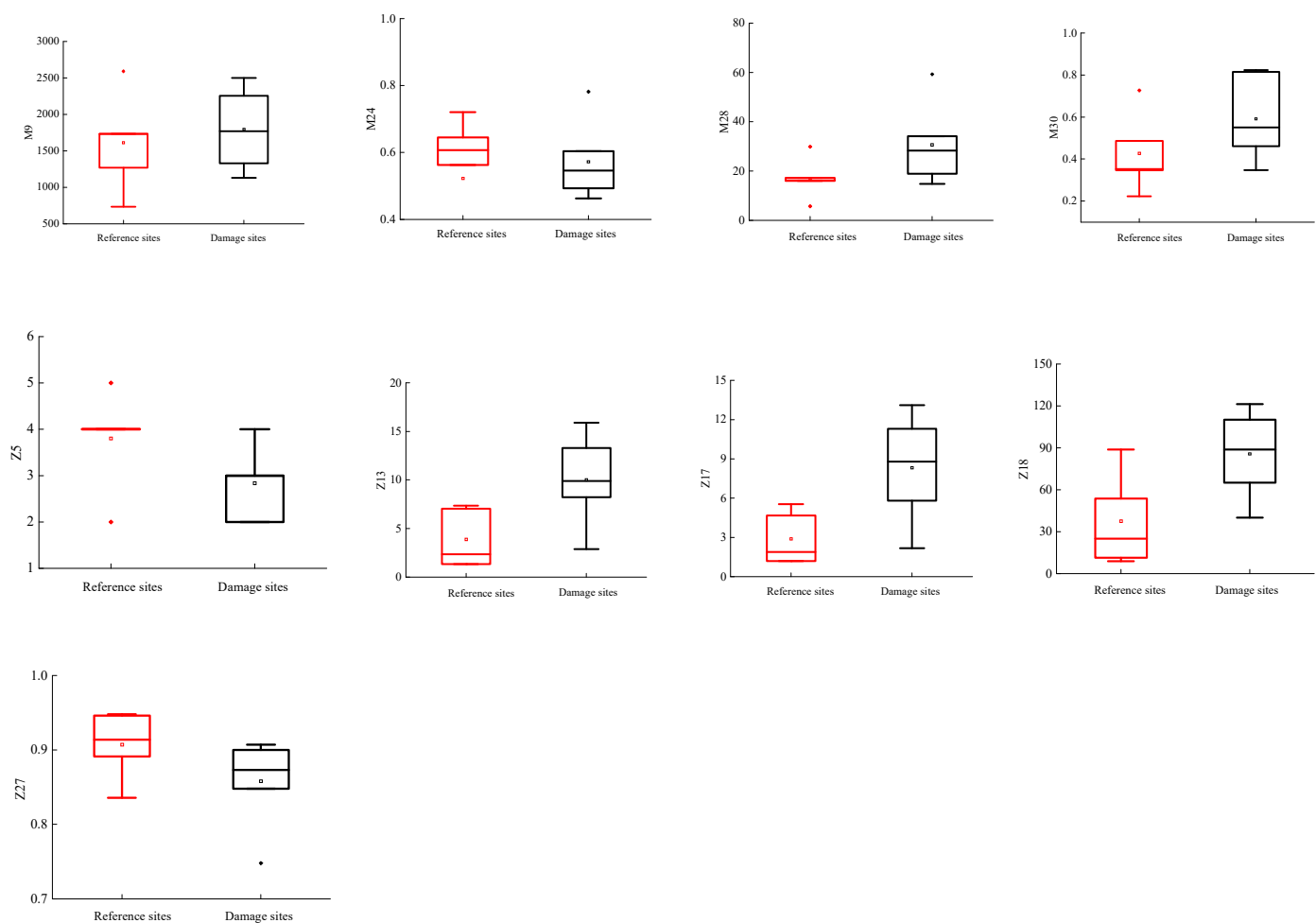


Figure S2 Box plot analysis during the dry season.