

Table S1 Function traits of metazooplankton

Species	Body length (mm)	Feeding type (categorical variable)	Predator defense (categorical variable)	Habitat type (categorical variable)	Trophic group (categorical variable)
<i>Moina micrura</i>	0.68	<i>Daphnia</i>	Rapid swimming	Pelagic	Herbivorous
<i>Ceriodaphnia quadrangula</i>	0.5	<i>Daphnia</i>	Rapid swimming	Pelagic	Herbivorous
<i>Alona diaphana</i>	0.4	<i>Chydorus</i>	Not moving	Litoral	Herbivorous
<i>Alona quadrangularis</i>	0.32	<i>Chydorus</i>	Not moving	Litoral	Herbivorous
<i>Alona eximia</i>	0.38	<i>Chydorus</i>	Not moving	Litoral	Herbivorous
<i>Pleuroxus hamulatus</i>	0.43	<i>Chydorus</i>	Not moving	Litoral	Herbivorous
<i>Bosmina coregoni</i>	0.33	<i>Bosmina</i>	Reduced swimming	Pelagic	Herbivorous
<i>Bosmina longirostris</i>	0.29	<i>Bosmina</i>	Reduced swimming	Pelagic	Herbivorous
<i>Bosmina coregoni</i> Baird	0.31	<i>Bosmina</i>	Reduced swimming	Pelagic	Herbivorous
<i>Bosminopsis deitersi</i>	0.38	<i>Bosmina</i>	Reduced swimming	Litoral	Herbivorous
<i>Diaphanosoma chankensis</i>	0.68	<i>Sida</i>	Pausing and jumping	Pelagic	Herbivorous
<i>Diaphanosoma brachyurum</i>	0.64	<i>Sida</i>	Pausing and jumping	Pelagic	Herbivorous
<i>Daphnia magna</i>	0.48	<i>Sida</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Daphnia longispina</i>	0.3	<i>Sida</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Mesocyclops leuckarti</i>	0.8	<i>Raptorial</i>	Pausing and jumping	Pelagic	Carnivorous
<i>Microcyclops varicans</i>	0.65	<i>Raptorial</i>	Pausing and jumping	Litoral	Herbivorous
<i>Microcyclops javanus</i>	0.71	<i>Raptorial</i>	Pausing and jumping	Litoral	Herbivorous
<i>Cyclops vicinus</i>	1.13	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Cyclops. sp</i>	1.2	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Limnocletodes behningi</i>	1.2	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Limnocletodes. sp</i>	1.1	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Rotaria citrina</i>	0.36	<i>Bosmina</i>	Rapid swimming	Pelagic	Omnivorous
<i>Rotaria rotatoria</i>	0.42	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
<i>Dicranophorus caudatus</i>	0.24	<i>Raptorial</i>	Pausing and jumping	Pelagic	Carnivorous
<i>Colurella uncinata</i>	0.11	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Colurella obtusa</i>	0.12	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Brachionus quadridentatus</i>	0.24	<i>Chydorus</i>	Rapid swimming	Litoral	Omnivorous
<i>Brachionus calyciflorus</i>	0.21	<i>Chydorus</i>	Rapid swimming	Litoral	Omnivorous
<i>Brachionus forficula</i>	0.24	<i>Chydorus</i>	Rapid swimming	Litoral	Omnivorous
<i>Brachionus angularis</i>	0.22	<i>Chydorus</i>	Rapid swimming	Litoral	Omnivorous
<i>Brachionus diversicornis</i>	0.23	<i>Chydorus</i>	Rapid swimming	Litoral	Omnivorous
<i>Trichocerca pusilla</i>	0.12	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Trichocerca longiseta</i>	0.13	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Trichocerca bicristata</i>	0.15	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Trichocerca lophoessa</i>	0.13	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Trichocerca similis</i>	0.12	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Trichocerca weberi</i>	0.15	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
<i>Euchlanis pellucida</i>	0.19	<i>Stationary</i>	Not moving	Litoral	Herbivorous

		<i>suspension</i>			
Euchlanis triquetra	0.22	<i>Stationary suspension</i>	Not moving	Litoral	Herbivorous
Epiphanes senla	0.14	<i>Bosmina</i>	Not moving	Litoral	Herbivorous
Lecane buna	0.24	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Lecane ungulata	0.27	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Lecane nodosa	0.22	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Lecane ludwigu	0.25	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Lecane tenuiseta	0.26	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Monostyla unguitata	0.31	<i>Stationary suspension</i>	Not moving	Pelagic	Omnivorous
Monostyla lunaris	0.34	<i>Stationary suspension</i>	Not moving	Pelagic	Omnivorous
Monostyla bulla	0.38	<i>Stationary suspension</i>	Not moving	Pelagic	Omnivorous
Monostyla pyriformis	0.29	<i>Stationary suspension</i>	Not moving	Pelagic	Omnivorous
Monostyla hamata	0.34	<i>Stationary suspension</i>	Not moving	Pelagic	Omnivorous
Monostyla elachis	0.36	<i>Stationary suspension</i>	Not moving	Pelagic	Omnivorous
Lepadella apsidea	0.12	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Lepadella ovalis	0.13	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Keratella serrulata	0.08	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Keratella valga	0.09	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Keratella quadrata	0.07	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Keratella cochlearis	0.08	<i>Bosmina</i>	Not moving	Pelagic	Omnivorous
Filinia longiseta	0.19	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
Filinia passn	0.21	<i>Raptorial</i>	Pausing and jumping	Pelagic	Omnivorous
Dissotrocha aculeate	0.38	<i>Bosmina</i>	Rapid swimming	Pelagic	Herbivorous
Asplanchna priodonta	0.64	<i>Bosmina</i>	Not moving	Pelagic	Herbivorous
Trichotria letractis	0.29	<i>Chydorus</i>	Rapid swimming	Pelagic	Omnivorous
Eothinia elongata	0.33	<i>Chydorus</i>	Rapid swimming	Pelagic	Omnivorous

Table S2 Cyanobacteria abundance and biomass at each sampling site

Site	July		October		January		May	
	Abundance (\times 10^5 cells/L)	Biomass (mg/L)	Abundance (\times 10^5 cells/L)	Biomass (mg/L)	Abundance (\times 10^5 cells/L)	Biomass (mg/L)	Abundance (\times 10^5 cells/L)	Biomass (mg/L)
S1	31.24	2.111	2.71	0.011	0.24	0.017	3.09	0.118
S2	134.35	9.489	5.11	0.172	0.02	0.001	2.83	0.139
S3	132.11	9.379	4.13	0.339	0	0	1.59	0.046
S4	63.62	4.447	4.36	0.297	0.31	0	4.91	0.136
S5	244.93	17.335	22.72	1.599	0.11	0.008	6.68	0.143
S6	185.42	13.131	155.99	10.934	1.88	0.094	7.55	0.302
S7	186.77	13.259	0.02	0.005	0.46	0.033	1.3	0.061
S8	49.11	3.476	0.76	0.052	0.06	0.005	0.78	0.053
S9	183.76	13.047	0.12	0.001	0.61	0.043	0.9	0.064
S10	19.79	1.403	0.86	0.069	0	0	0.28	0.013
S11	33.64	2.388	0.67	0.047	0	0	0.08	0.003
S12	28.3	2.008	2	0.142	0.57	0.029	1.36	0.028
S13	141.89	10.051	7.87	0.37	0.46	0.033	3.27	0.114
S14	107.75	7.627	14.65	1.02	0.06	0.001	1.02	0.053
S15	18.76	1.306	0.05	0	0.15	0.014	0.11	0.002
S16	19.13	1.358	0.06	0.006	0.17	0.008	0.11	0.015
S17	28.33	2.012	0.09	0.004	0.09	0.002	0.12	0.007

Table S3 Major species of cyanobacteria and metazooplankton

Metazooplankton		Cyanobacteria
Category	Species	Species
Cladocera	Moina micrura	Coelosphaerium kuetzingiarum
	Ceriodaphnia quadrangula	Coelosphaerium.sp
	Alona diaphana	Spirulina major
	Alona quadrangularis	Phormidium beggiatoiforme
	Alona eximia	Phormidium allorgei
	Pleuroxus hamulatus	Phormidium beggiatoiforme
	Bosmina coregoni	Nostoc Vauch.sp
	Bosmina longirostris	Merismopedia.sp
	Bosmina coregoni	Merismopedia minima
	Bosminopsis deitersi	Merismopedia sinica
	Diaphanosoma chankensis	Anabaena circinalis
	Diaphanosoma brachyurum	Chroococcus minutus
Copepods	Daphnia magna	Chroococcus tenax
	Daphnia longispina	Chroococcus minor
	Mesocyclops leuckarti	Chroococcus limneticus
	Microcyclops varicans	Anabaenopsis arnoldii
	Microcyclops javanus	Microcystis aeruginosa
	Cyclops vicinus	Microcystis flos-aquae
	Cyclops. sp	
	Limnocletodes behningi	
	Limnocletodes. sp	
Rotifer	Rotaria citrina	
	Rotaria rotatoria	
	Dicranophorus caudatus	
	Colurella uncinata	
	Colurella obtusa	
	Brachionus quadridentatus	
	Brachionus calyciflorus	
	Brachionus forficula	
	Brachionus angularis	
	Brachionus diversicornis	
	Trichocerca pusilla	
	Trichocerca longiseta	
	Trichocerca bicristata	
	Trichocerca lophoessa	
	Trichocerca similis	
	Trichocerca weberi	
	Euchlanis pellucida	

	Euchlanis triquetra	
	Epiphanes senla	
	Lecane buna	
	Lecane unguolata	
	Lecane nodosa	
	Lecane ludwigu	
	Lecane tenuiseta	
	Monostyla unguitata	
	Monostyla lunaris	
	Monostyla bulla	
	Monostyla pyriformis	
	Monostyla hamata	
	Monostyla elachis	
	Lepadella apsida	
	Lepadella ovalis	
	Keratella serrulata	
	Keratella valga	
	Keratella quadrata	
	Keratella cochlearis	
	Filinia longiseta	
	Filinia passn	
	Dissotrocha aculeate	
	Asplanchna priodonta	
	Trichotria letractis	
	Eothinia elongata	