

Supplementary Materials

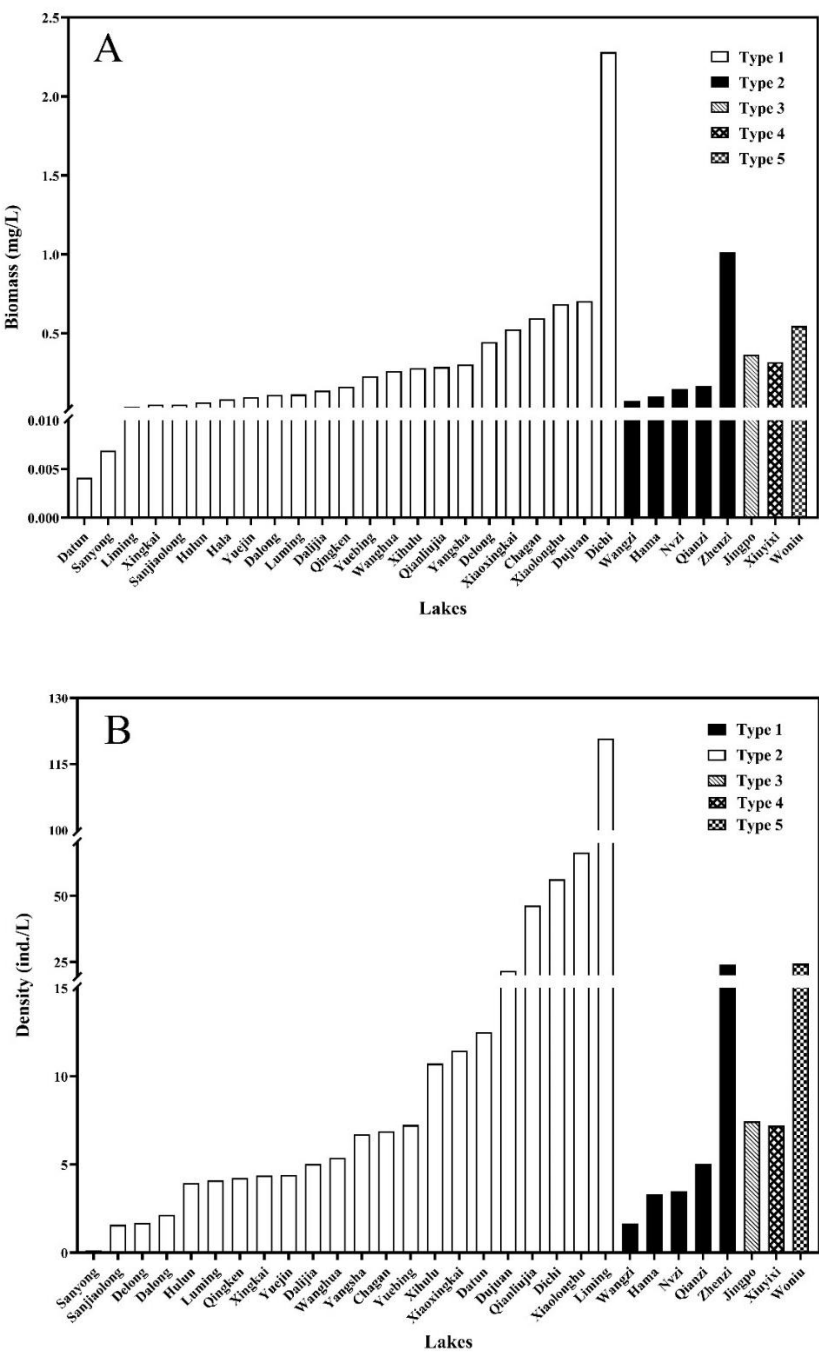


Figure S1. The biomass (A) and density (B) of calanoid copepods in 31 lakes.

Table S1. Physical and chemical characteristics of 31 lakes with calanoid copepods occurrences.

Lake	Lat. (°N)	Lng (°E)	Type	Altitude (m a.s.l)	Salinity (g/L)	Depth (m)	pH	Conductivity (μS/cm)	Turbidity (NTU)	TN (mg/L)	TP (mg/L)	NH ₄ -N (mg/L)	Chl <i>a</i> (μg/L)	DOC (mg/L)
Wanghua	46.55	125.29	1	135	0.45	1.8	9.02±0	958.67±4.04	20.2±1	1.42±0.02	0.06±0	0.11±0.01	15.05±2.88	10.59±0.46
Datun	45.93	123.75	1	124	0.25	1.5	8.92±0.04	590±12.73	34.25±4.31	1.16±0.01	0.11±0	0.1±0	20.13±2.37	7.01±1.11
Liming	46.60	125.13	1	143	0.23	1.5	8.9±0.02	517.33±1.15	21.53±1.45	0.89±0.06	0.05±0.01	0.07±0	11.03±1.06	6.48±0.34
Xihulu	46.69	124.21	1	122	0.42	1.5	9.1±0.02	902.67±2.08	45.03±1.53	1.33±0.04	0.07±0	0.08±0.01	21.73±1.77	10.17±4.13
Sanyong	46.56	125.11	1	143	0.52	1.9	9.21±0.03	1057.33±2.31	40.63±0.45	1.69±0.08	0.1±0.01	0.1±0	39.35±2.67	11.66±2.11
Hulun	49.30	117.67	1	534	0.86	4.6	9.23±0.02	1729.2±1.92	34.62±4.01	2.08±0.26	0.14±0.03	0.06±0.01	25.43±4.3	45.12±3.92
Chagan	45.21	124.42	1	111	0.42	1.9	9.45±0.02	987±7.94	74.6±7.76	1.58±0.11	0.11±0.01	0.1±0.01	33.62±2.52	7.14±1.16
Yuebing	46.45	124.36	1	126	0.54	2	9.15±0.02	1129.33±16.07	38.57±4.25	1.89±0.04	0.1±0.01	0.18±0.07	16.96±2.06	30.65±5.96
Delong	46.83	124.06	1	126	0.23	2.4	8.77±0.29	489.67±21.36	3.63±0.46	0.96±0.06	0.05±0.01	0.1±0.01	11.31±1.54	9.03±0.67
Dichi	47.31	120.48	1	1123	0.04	6.8	8.66±0.14	107.00±0	3.4±0.57	0.63±0.16	0.06±0	0.15±0.03	12±0.59	5.28±0.49
Dalong	42.34	126.39	1	625	0.14	49.7	8.64±0.01	322.5±0.71	0.65±0.07	0.64±0.01	0.02±0	0.06±0	-	4.75
Xiaoxingkai	45.37	132.37	1	55	0.11	2.7	8.91±0.1	253.8±2.28	66.64±4.66	0.9±0.07	0.05±0	0.08±0	10.7±1.8	6.3±0.17
Xingkai	45.35	132.36	1	55	0.07	4.8	8.37±0.26	162.6±0.55	105.28±6.04	0.78±0.07	0.12±0	0.06±0.01	4.98±1.19	4.32±0.22
Dalijia	48.29	134.28	1	18	0.07	2.8	9.69±0.03	169.67±0.58	5.33±0.38	1.17±0.11	0.04±0.004	0.188±0.06	26.79±1.904	10.83±0.239
Hala	49.87	118.66	1	520	0.33	30	9.42±0.03	718.67±3.79	44.33±10.6	2.98±0	0.19±0	0.13±0	42.22±0	17.51±0
Xiaolonghu	46.80	124.32	1	126	1.17	0.9	9.53±0.29	2321.33±0.58	41.67±2.1	2.14±0.06	0.09±0	0.1±0.03	11.46±1.64	80.86±16.51
Yuejin	45.99	129.02	1	88	0.04	1.8	9.84±0.01	107±1.63	27.9±4.13	2.24±0.33	0.15±0.02	0.09±0.01	80.28±10.09	11.64±0.31
Qingken	46.38	125.51	1	132	1.38	1.9	9.19±0.03	2739.33±22.14	68.9±3.77	2.16±0.05	0.13±0.01	0.23±0.05	20.4±1.85	95.4±1.47
Sanjiaolong	42.38	126.45	1	833	0.04	66.1	8.03	90	0	0.47	0.03	0.08	-	2.48
Yangsha	46.13	123.24	1	139	0.15	1.1	9.10±0.03	311.67±3.06	191.9±2.61	1.18±0.09	0.11±0.01	0.09±0.03	27.6±6.88	5.37±0.37
Qianliujia	45.95	123.37	1	125	0.93	0.7	9.37±0.01	1700.67±288.1	222.17±22.27	2.66±0.05	0.35±0.01	0.11±0	26.23±3.44	68.28±11.36
Dujuan	47.42	120.56	1	1244	0.02	1.7	9.65±0.28	51.00±4.24	2.5±1.27	0.86±0.06	0.04±0	0.33±0.06	8.26±3.11	13.53±1.1
Luming	47.40	120.49	1	1190	0.02	1.7	9.15±0.44	46.00±0	1.00±0.42	0.79±0.01	0.03±0	0.42±0	2.92±0.50	13.97±0.00

Nvzi	44.93	123.98	2	111	2.86	0.5	9.97±0.01	5375.00±13.11	103.93±7.05	6.02±0.87	1.88±0.05	0.14±0.02	67.58±10.28	141.9±8.28
Zhenzi	45.05	123.86	2	120	4.01	1.1	9.72±0.01	7349.67±13.5	101.37±8.6	3.2±0.13	0.86±0.15	0.11±0.02	55.01±13.37	102.24±49.52
Hama	45.57	124.11	2	111	1.52	1.7	9.78±0.02	2936.67±5.77	63.37±1.12	5.48±1.71	0.31±0.06	0.11±0.00	104.2±8.14	124.03±17.62
Wangzi	45.18	123.88	2	126	1.41	0.9	9.74±0.01	5266±3542.6	134.35±5.87	4.05±0.22	0.41±0.01	0.14±0.03	96.98±22.53	117.55±24.54
Qianzi	45.04	124.05	2	124	0.38	1.4	9.64±0.02	773.33±1.15	34.20±1.28	3.61±0.21	0.45±0.03	0.16±0.01	132.5±14.15	8.74±0.36
Jingpo	43.85	128.90	3	341	0.05	18.5	8.24±0.31	121.17±3.25	42.37±27.38	1.83±0.14	0.07±0.01	0.11±0.01	4.29±2.41	5.95±0.29
Xiuyixi	46.52	124.80	4	140	3.05	2.4	9.46±0.03	5699.00±16.37	13.53±3.04	11.14±2.11	2.18±0.05	0.19±0.02	35.83±4.27	242.13±10.17
Woniu	46.83	124.38	5	122	5.65	2.9	9.49±0.02	10080.00±23.64	2.27±0.4	11.53±0.95	7.15±0.13	0.25±0.06	1.88±0.42	223.20±40.69

*Latitude (Lat.), Longitude (Lng.).

Table S2. The body length (average \pm standard deviation) of calanoid copepods (adult) in 31 lakes.

Species	Body length (mm)
Family Temoridae Giesbrecht, 1893	
<i>Heterocope soldatovi</i> Rylov, 1922	Dalijia (1.26 \pm 0.1)
Family Centropagidae Giesbrecht, 1893	
<i>Boeckella triarticulata</i> (Thomson G.M., 1883)	Xingkai (0.95 \pm 0.08), Sanjiaolong (1.04 \pm 0.21), Yuejin (1.05 \pm 0.21), Xiaolonghu (1.04 \pm 0.22), Qianzi (1.34 \pm 0.43), Hala (1.29 \pm 0.16), Hulun (0.99 \pm 0.13)
<i>Sinocalanus doerrii</i> (Brehm, 1909)	Xingkai (1.17 \pm 0.13), Dalijia (1.07 \pm 0.22), Xiaoxingkai (1.19 \pm 0.18), Delong (1.32 \pm 0.21), Jingpo (1.2 \pm 0.26), Yuebing (1.12 \pm 0.18), Wanghua (1.31 \pm 0.17), Xihulu (1.14 \pm 0.2), Sanyong (1.21 \pm 0.22), Liming (1.21 \pm 0.17), Chagan (1.2 \pm 0.25), Yangsha (1.25 \pm 0.15), Qianliujia (1.45 \pm 0.34), Datun (1.01 \pm 0.17)
Family Diaptomidae Baird, 1850	
<i>Acanthodiaptomus pacificus</i> (Burckhardt, 1913)	Dalong (1.07 \pm 0.18)
<i>Arctodiaptomus rectispinosus</i> Kikuchi K., 1940	Xiuyixi (1.31 \pm 0.21), Nvzi (1.44 \pm 0.2), Zhenzi (1.33 \pm 0.23)
<i>Neutrodiaptomus genogibbosus</i> Shen, 1956	Dujuan (1.22 \pm 0.19), Luming (1.43 \pm 0.09), Dichi (1.13 \pm 0.14)
<i>Neutrodiaptomus pachypoditus</i> (Rylov, 1925)	Jingpo (0.98 \pm 0.17)
<i>Metadiaptomus asiaticus</i> (Uljanin, 1875)	Woniu (1.1 \pm 0.17)
<i>Sinodiaptomus chaffanjoni</i> (Richard, 1897)	Hama (1.53 \pm 0.26)
<i>Sinodiaptomus sarsi</i> (Rylov, 1923)	Qingken (1.25 \pm 0.27), Wanghua (1.17 \pm 0.12), Qianliujia (1.31 \pm 0.22), Wangzi (1.35 \pm 0.46)