ACCSCIENCE PUBLISHING

Asian Journal of Water, Environment and Pollution

ORIGINAL RESEARCH ARTICLE

Spatiotemporal dynamics of benthic macrofaunal assemblages and environmental drivers in the Nan'ou River Basin, China

Supplementary File

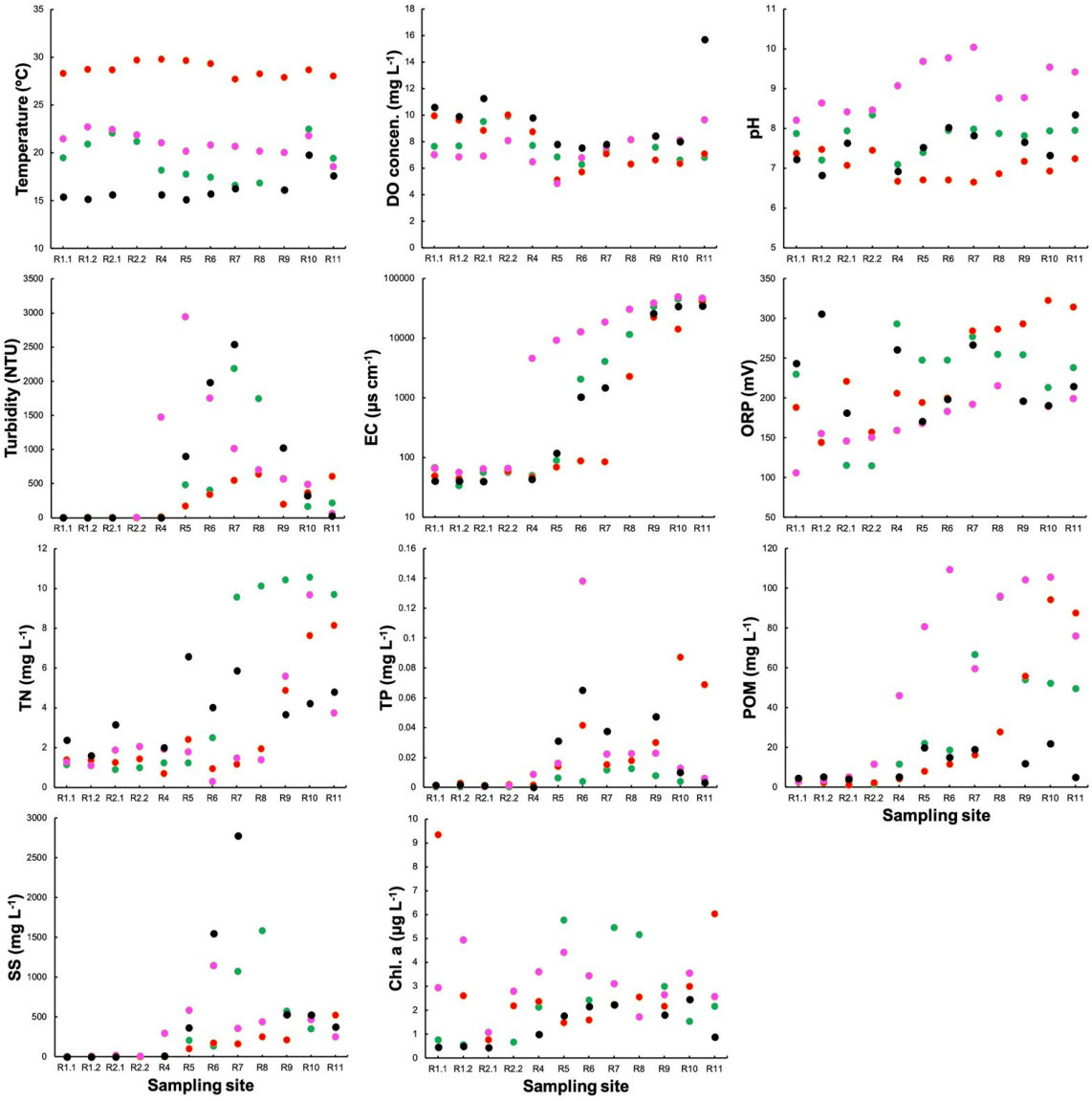

Figure S1. Environmental parameters during the investigation periods in the Nan'ou River Basin
Notes: Green: Spring; Red: Summer; Magenta: Autumn; Black: Winter.
Abbreviations: Chl. a: Chlorophyll a; DO: Dissolved oxygen; EC: Electrical conductivity; NTU: Nephelometric turbidity unit; ORP: Oxidation–reduction potential; POM: Particulate organic matter; SS: Suspended solid materials; TN: Total nitrogen; TP: Total phosphate.

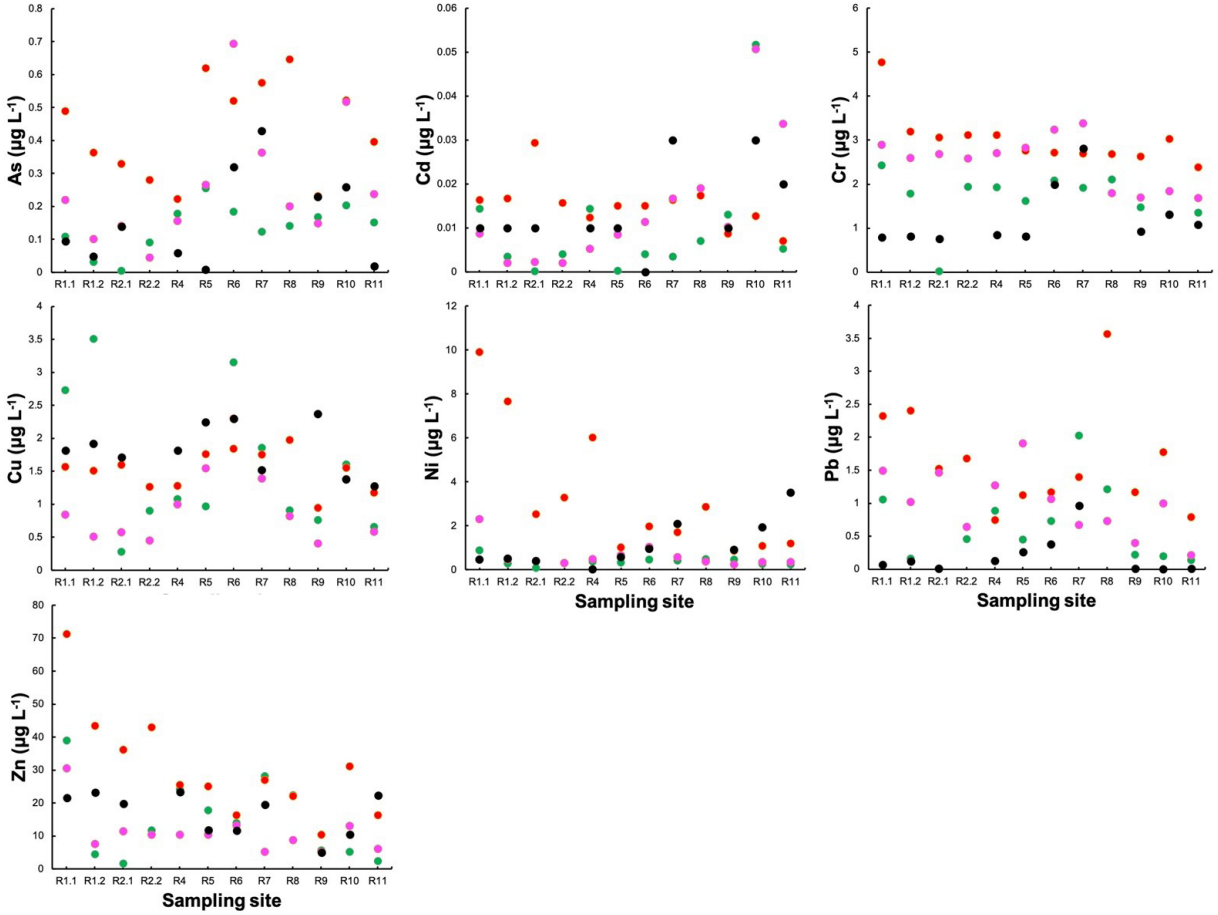

Figure S2. Heavy metal concentrations during the investigation periods in the Nan'ou River Basin
Notes: Green: Spring; Red: Summer; Magenta: Autumn; Black: Winter.
Abbreviations: As: Arsenic; Cd: Cadmium; Cr: Chromium; Cu: Copper; Ni: Nickel; Pb: Lead; Zn: Zinc.

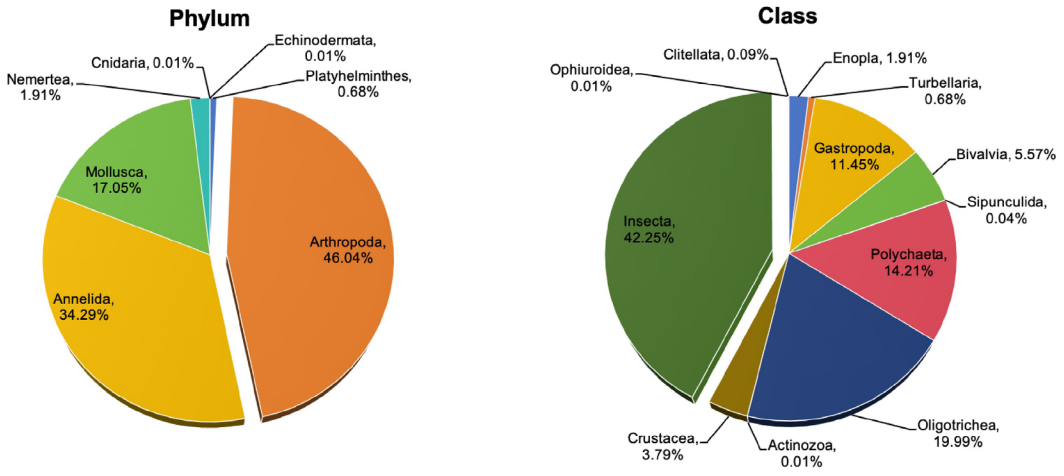

Figure S3. Composition of large benthic animals at the phylum and class levels in the Nanxijiang and Oujiang Rivers

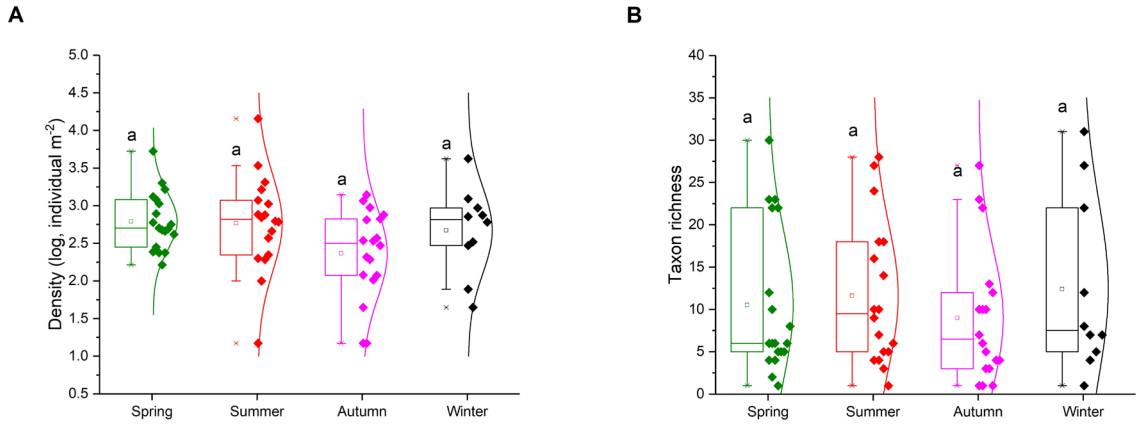

Figure S4. Seasonal changes in population density (A) and taxon richness (B) of large benthic animals in the Nanxijiang and Oujiang Rivers
Note: The same letters above boxes indicate no significant differences among groups at the significance level of $p < 0.05$.

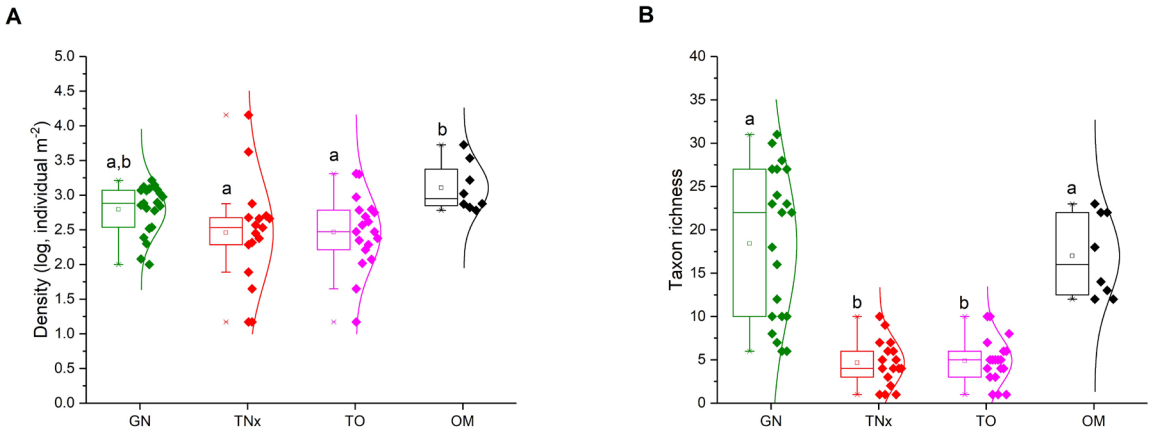

Figure S5. Population density (A) and taxon richness (B) of large benthic animals among four different regions in Nanxijiang and Oujiang Rivers
Note: The same letters above boxes indicate no significant differences among groups at the significance level of $p < 0.05$.
Abbreviations: GN: Gravel-bed region of Nanxijiang River; OM: Oujiang River Mouth; TNx: Tidal region of Nanxijiang River; TO: Tidal region of Oujiang River.

Table S1. Geographical distribution of 12 survey sites in the Nan'ou River Basin, Zhejiang Province, China

Sampling site	Site name	Location		
		Altitude	Longitude	Latitude
R1-1	Tongzhou Dian	44 m	120°39'40.7016" E	28°16'18.3972" N
R1-2	Xiangzhang Huayuan	21 m	120°42'30.0564" E	28°15'48.3516" N
R2-1	Nanxijiang River Campsite	28 m	120°44'53.6676" E	28°17'54.2904" N
R2-2	Shizhu Zhan	25 m	120°44'51.6012" E	28°16'23.5380" N
R4	Shatou Zhen	9 m	120°45'37.7352" E	28°12'9.3456" N
R5	Shangtang Zhen	2 m	120°41'46.3992" E	28°8'57.5592" N
R6	Oubei Zhen Huangtian Jiedao	1 m	120°41'58.254" E	28°4'43.6656" N
R7	Oubei Matou	0 m	120°39'27.756" E	28°2'5.9244" N
R8	Laotubei Matou	0 m	120°46'15.1643" E	28°0'56.7504" N
R9	Lingkun Matou	0 m	120°53'27.0419" E	27°58'45.7068" N
R10	Lingni Beidi (south)	0 m	121°1'16.3704" E	27°53'36.2183" N
R11	Lingni Beidi (north)	0 m	121°0'55.7208" E	27°54'1.0331" N

Table S2. Geographical characteristics at 12 survey sites in the Nan'ou River Basin, Zhejiang Province, China

Sampling sites	Distance from the river mouth (km)	Accumulated watershed area (km^2)	Channel gradient (%)	Channel width (m)	Average depth (m)	Average flow speed ($m\ s^{-1}$)	Bed substrate
Gravel-bed region (Nanxijiang River)							
R1-1	62.8	409.5	0.40	100	0.19 (0.10)	0.53 (1.14)	Sand, pebble
R1-2	58.3	459.0	0.37	82	0.18 (0.07)	0.78 (0.63)	Sand, pebble
R2-1	60.5	1,057.1	0.57	103	0.18	0.59	Sand, pebble
R2-2	57.4	1,103.5	0.54	137	0.23	0.67	Sand, pebble
Tidal region (Nanxijiang River)							
R4	49.6	1,747.4	0.10	235	–	0.35	Sand, pebble, mud
R5	41.0	1,867.7	0.07	203	–	0.21	Mud
R6	33.2	2,012.4	0.04	390	–	0.21	Mud
Tidal region (Oujiang River)							
R7	26.9	17,487.5	0	777	–	0.29	Mud
R8	15.5	17,692.6	0	980	–	0.39	Mud
R9	0	18,023.8	0	1,600	–	0.39	Mud
River mouth (Oujiang River)							
R10	13.5	–	0	–	–	–	Mud
R11	13.1	–	0	–	–	–	Mud