Journal: Applied Microbiology and Biotechnology

Supplementary materials of the article:

Spatiotemporal dynamics and determinants of planktonic bacterial and microeukaryotic communities in a Chinese subtropical river

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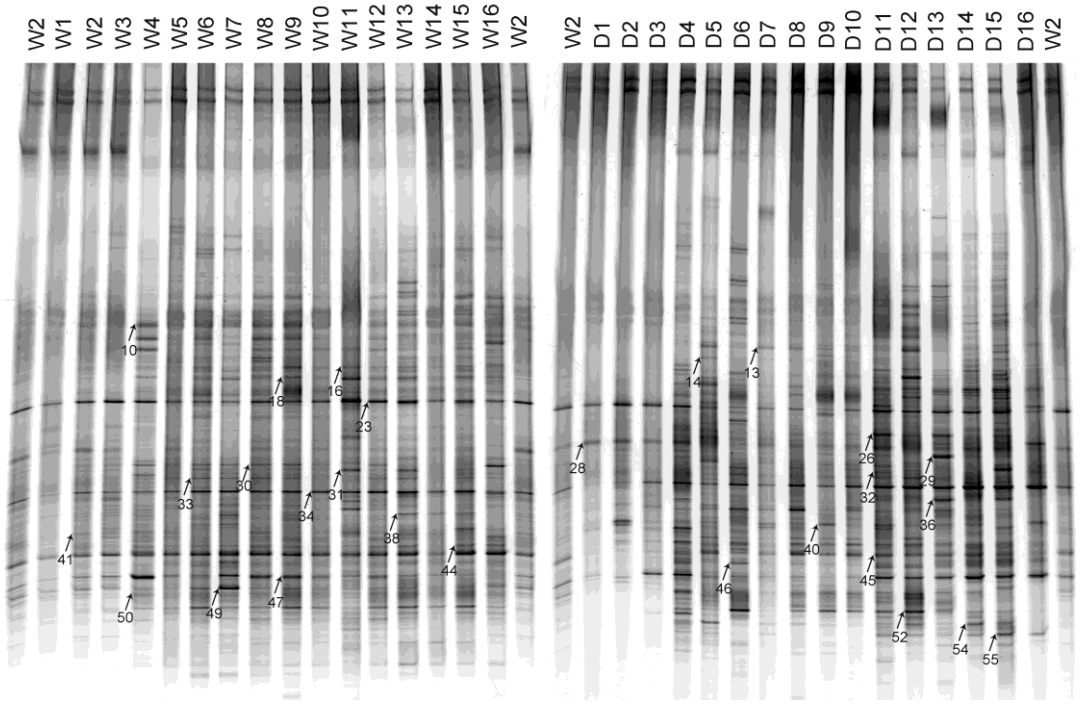

Fig. S1 DGGE patterns of 16S rDNA fragments amplified from the Jiulong River. W and D denote wet and dry seasons, respectively

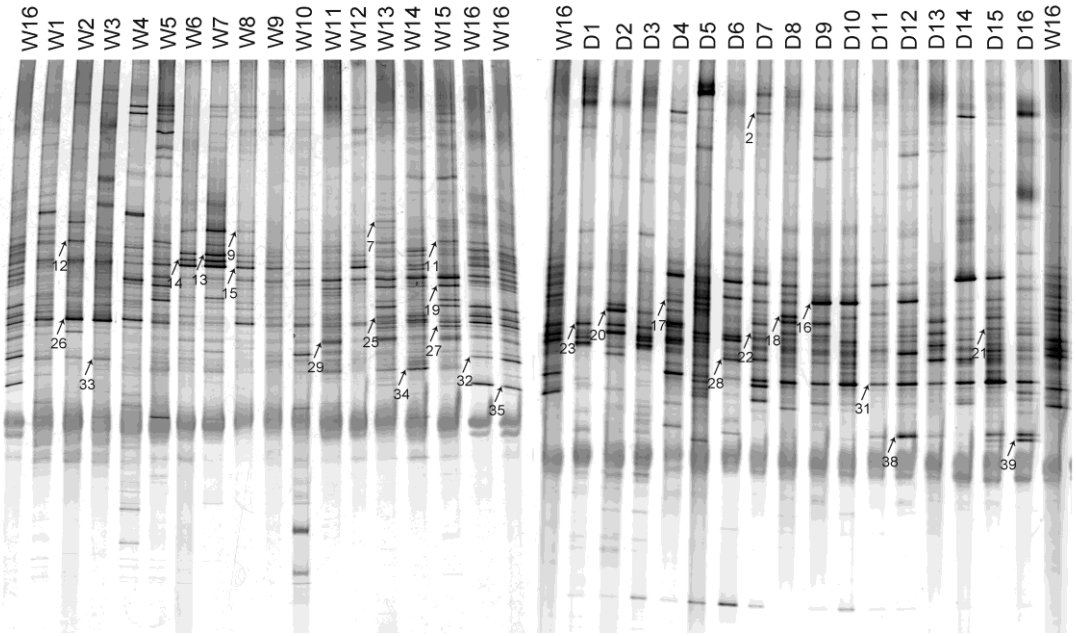

Fig. S2 DGGE patterns of 18S rDNA fragments amplified from the Jiulong River. W and D denote wet and dry seasons, respectively

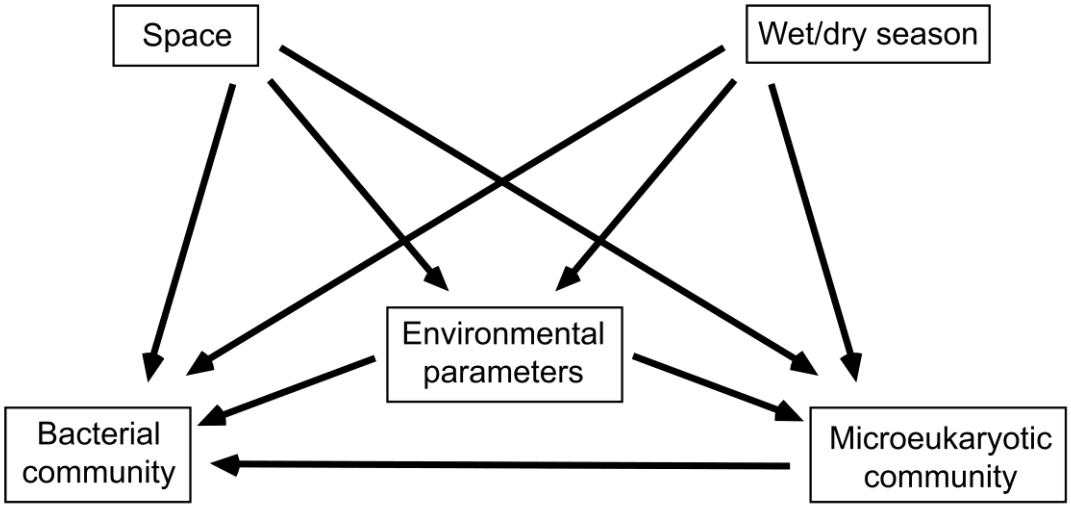

Fig. S3 Initial model illustrating all plausible pathways

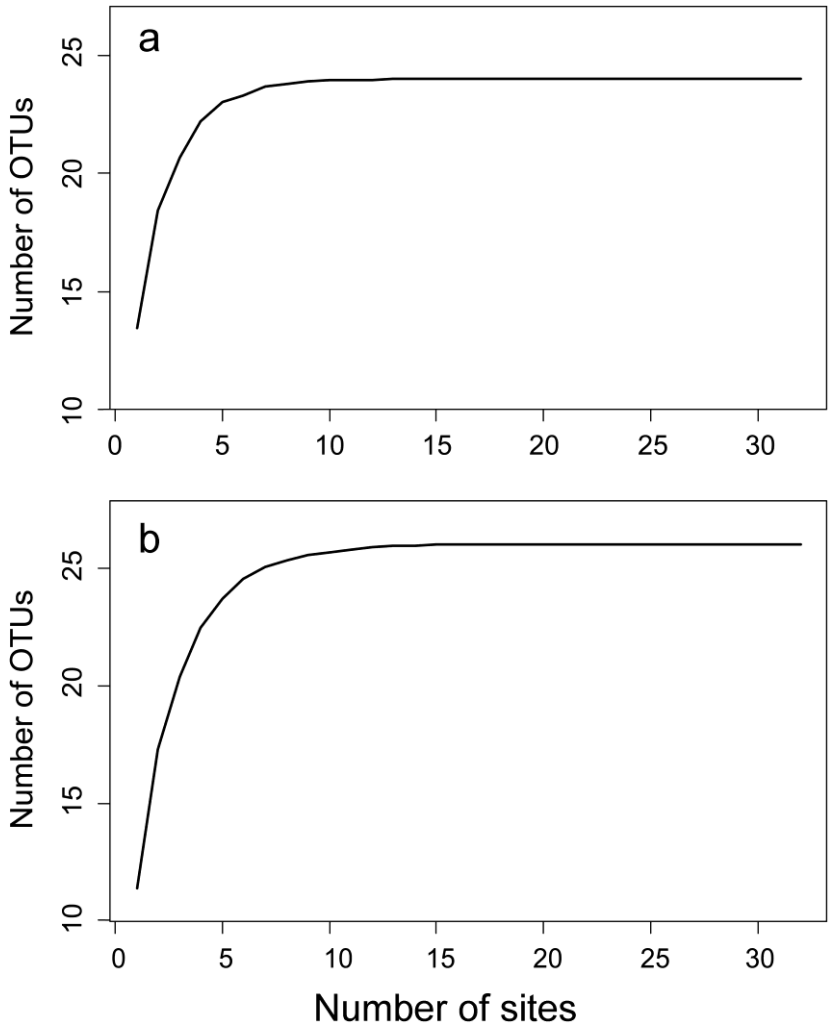

Fig. S4 Species accumulation curves for **a** bacterial and **b** microeukaryotic communities

Table S1 Summary of biological and physicochemical parameters in the wet and dry seasons

	Wet season (n=16)		Dry season (n=16)		*P*
Parameter	Mean	SD	Mean	SD	
Temperature (^{o}C)	27.15	1.94	17.59	2.00	< 0.01
Current velocity (m/s)	0.272	0.308	0.123	0.101	NS
DO (mg l^{-1})	7.55	2.21	8.21	1.29	NS
Conductivity (µS cm^{-1})	91.0	56.5	210.0	143.6	< 0.05
Salinity (psu)	0.04	0.03	0.10	0.08	< 0.01
pH	7.70	0.64	8.10	0.25	< 0.05
ORP (mv)	370.25	51.82	324.81	37.65	< 0.01
Chlorophyll a (µg L^{-1})	6.48	17.01	6.03	6.18	NS
Turbidity (NTU)	68.04	142.09	28.59	25.74	NS
Suspended solids (mg l^{-1})	40.1	19.8	37.4	19.5	NS
TN (mg l^{-1})	2.9734	1.6221	6.2000	4.8561	< 0.05
NH_4-N (mg l^{-1})	0.3253	0.3698	1.8904	3.7335	< 0.01
NO_x-N (mg l^{-1})	2.3406	1.4447	3.0225	1.7233	NS
NO_3-N (mg l^{-1})	2.2267	1.4296	2.7986	1.5360	NS
NO_2-N (mg l^{-1})	0.1139	0.0959	0.2239	0.2440	NS
TP (mg l^{-1})	0.2167	0.1244	0.4387	0.4927	< 0.05
PO_4-P (mg l^{-1})	0.1192	0.0856	0.2348	0.3438	NS
TC (mg l^{-1})	6.8453	2.7146	16.7097	9.1727	< 0.01
TOC (mg l^{-1})	1.0017	0.9003	2.4332	1.4380	< 0.01
Number of bacterial bands	20	7	24	9	NS
Number of eukaryotic bands	12	5	13	4	NS

n – Sample number; *P* – Level of significance based on independent samples t-test; NS – Not significant

Table S2 Accession number and best match sequences from GenBank for 16S rDNA sequences from DGGE bands

Group	Band	Best match sequences from GenBank (accession no.)	Similarity (%)	Accession number
Betaproteobacteria	38	*Acidovorax* sp. ZYXN1 (AB847939)	98	KP708773
Betaproteobacteria	40	*Albidiferax* sp. 7A-193 (KF441631)	98	KP708770
Betaproteobacteria	28	Candidatus *Accumulibacter* sp. JJ007 (JN679214)	100	KP708787
Betaproteobacteria	29	*Limnohabitans* sp. 2KL-15 (HE600664)	99	KP708781
Betaproteobacteria	47	*Limnohabitans* sp. LI2-55 (AJ964892)	99	KP708774
Betaproteobacteria	44	*Limnohabitans* sp. Rim28 (HE600684)	99	KP708775
Betaproteobacteria	33	*Polynucleobacter* sp. PnecC (KC702668)	99	KP708783
Betaproteobacteria	34	*Polynucleobacter* sp. PnecC (KC702668)	99	KP708776
Betaproteobacteria	23	*Propionivibrio* sp. HME6648 (HM590827)	99	KP708785
Actinobacteria	52	*Actinobacterium* acI-B2 (KC702667)	95	KP708760
Actinobacteria	54	*Actinobacterium* SCGC AAA208-D13 (JF488148)	99	KP708772
Actinobacteria	46	Candidatus *Planktophila limnetica* strain MWH-EgelM2-3.acI (FJ428831)	97	KP708767
Actinobacteria	45	*Demequina* sp. R-4-H-3 (KM362886)	92	KP708764
Actinobacteria	31	*Microbacteriaceae* bacterium KNC (AB540017)	99	KP708780
Actinobacteria	36	*Rhodoluna* sp. KAS9 (AB607304)	99	KP708769
Bacteroidetes	13	*Sediminibacterium* sp. JJ2209 (KC505149)	97	KP708793
Bacteroidetes	14	*Sediminibacterium* sp. JJ2209 (KC505149)	97	KP708791
Bacteroidetes	18	*Terrimonas* sp. 16-45A (HM124372)	87	KP708789
Alphaproteobacteria	55	*Alphaproteobacterium* HIN4 (AB599867)	99	KP708757
Alphaproteobacteria	49	*Rhodobacter* sp. R-36943 (FR691419)	98	KP708763
Firmicutes	32	*Clostridium* sp. K39 (AB610575)	99	KP708778
Firmicutes	30	*Lactococcus* sp. MARL49 (AY762111)	99	KP708784
Gammaproteobacteria	26	*Enhydrobacter* sp. SR 1-02 (KM253149)	99	KP708782
Gammaproteobacteria	50	*Enterobacter* sp. BAB-1327 (KM388800)	99	KP708758
Chlorophyta	41	*Chlorophyta* symbiont of *Lubomirskia* sp. isolate R60 (GU936930)	99	KP708779
Chlorophyta	10	*Tetraselmis* sp. RCC500 (AY702169)	99	KP708790
Stramenopiles	16	*Nannochloropsis limnetica* strain CCMP505 chloroplast (KC598089)	98	KP708788

Table S3 Accession number and best match sequences from GenBank for 18S rDNA sequences from DGGE bands

Group	Band	Best match sequences from GenBank (accession no.)	Similarity (%)	Accession number
Ciliophora	2	*Acineta* sp. OSW-2003-3 (AY332719)	86	KP708842
Ciliophora	9	*Ciliate* sp. NCMS0601 (AM412525)	92	KP708845
Ciliophora	26	*Oxytrichidae* sp. ER-2014 (KJ754152)	90	KP708835
Ciliophora	12	*Paralembus digitiformis* strain QD 4 (JQ956549)	92	KP708847
Ciliophora	7	*Pelagostrobilidium paraepacrum* isolate LWW08122202 (FJ876963)	98	KP708850
Ciliophora	16	*Pelagostrobilidium paraepacrum* isolate LWW08122202 (FJ876963)	98	KP708813
Ciliophora	19	*Pelagostrobilidium paraepacrum* isolate LWW08122202 (FJ876963)	93	KP708794
Ciliophora	18	*Tintinnidium* sp. 3 LS-2012 isolate 211 (JN831804)	97	KP708822
Chlorophyta	23	*Ankistrodesmus* sp. NDem 9/21 T-6w (AY846374)	93	KP708836
Chlorophyta	15	*Chlamydomonas* sp. BogD6/3T-6w (AY220571)	93	KP708841
Chlorophyta	11	*Chlamydomonas* sp. Tow 2/24 P-6w (AY220093)	99	KP708839
Chlorophyta	33	*Chlamydomonas* sp. Tow 2/24 P-6w (AY220093)	99	KP708826
Chlorophyta	20	*Chlamydomonas* sp. WTwin 8/18 P-5d (AY220084)	99	KP708797
Chlorophyta	27	*Chlorella* sp. Mary 9/21 BT-10w (AY197620)	99	KP708816
Chlorophyta	22	*Pteromonas protracta* (X91627)	99	KP708834
Ascomycota	25	*Coniochaeta ligniaria* (AJ496242)	100	KP708825
Chytridiomycota	28	*Powellomycetaceae* sp. C RS-2011 voucher PL160 (HQ901762)	96	KP708848
Chytridiomycota	13	*Powellomycetaceae* sp. C RS-2011 voucher PL160 (HQ901762)	93	KP708831
Rotifera	35	*Brachionus plicatilis* (BPU29235)	97	KP708799
Rotifera	21	*Brachionus plicatilis* (BPU49911)	93	KP708840
Rotifera	14	*Monostyla* sp. MPN-2013 (KF159017)	98	KP708810
Rotifera	32	*Monostyla* sp. MPN-2013 (KF159017)	98	KP708804
Chrysophyta	31	*Chrysophyta* sp. JZH-2007-002 (EF633325)	94	KP708807
Dinophyceae	17	*Cryptoperidiniopsoid* sp. Folly C5 (AY590481)	92	KP708802
Stramenopiles	38	*Pythium glomeratum* voucher CBS120914 (HQ643543)	98	KP708817
Choanoflagellata	29	*Salpingoeca* sp. ATCC 50153 (EU011929)	92	KP708833
Mollusca	34	*Anodonta* sp. SWH-2004 (AY579090)	99	KP708819
Mollusca	39	*Anodonta* sp. SWH-2004 (AY579090)	99	KP708828