Supporting Information

Occurrence and possible sources of antibiotic resistance genes in seawater of the South China Sea

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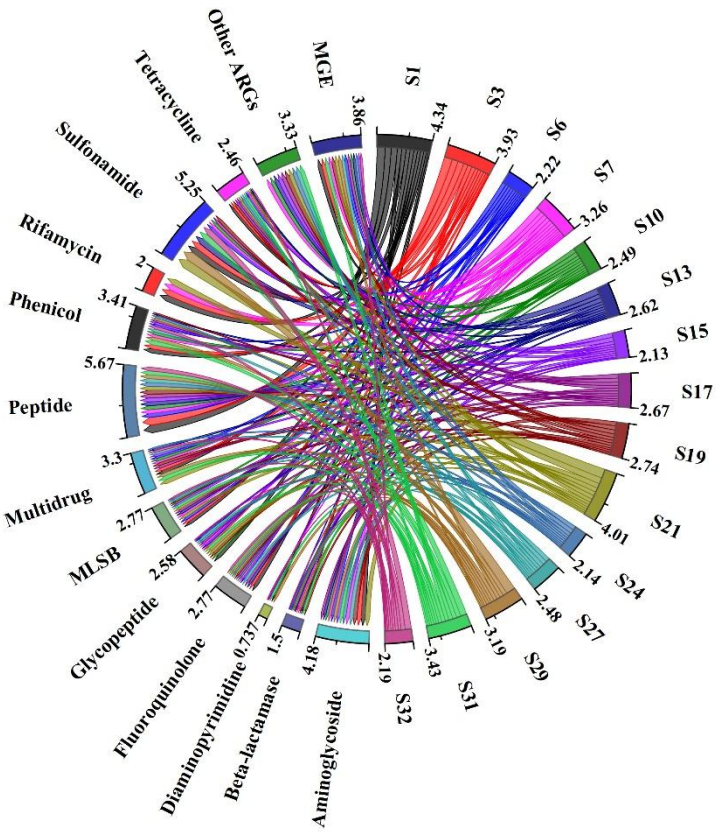

Fig. S1. Chord diagram of detection frequency of ARGs and MGEs in seawater of the South China Sea.

Table S1 Position information of sampling sites

Sampling site	Longitude (°)	Latitude (°)
S1	115.98126	18.6609
S3	114.00466	18.69693
S6	112.38634	19.47788
S7	111.57544	18.92684
S10	112.50621	17.66558
S13	114.9986	17.65174
S15	116.00251	16.6679
S17	114.00946	16.65802
S19	112.005	16.64556
S21	111.4083	17.48294
S24	110.32064	17.95002
S27	111.32948	16.57504
S29	111.99405	15.66978
S31	113.57996	15.66614
S32	114.9937	15.66594

Table S2 Subtypes of ARGs and MGEs corresponding to gene nomination in Fig. 2

No.	Subtype	No.	Subtype
G1	*aac*(6')-Im	G74	*erm*(35)
G2	*aph*(9)-Ib	G75	*cad*C
G3	*aac*(3)-Via	G76	*cefa*_qacelta
G4	*aac*(6')-Ig	G77	*mex*B
G5	*aad*A16	G78	*ceo*A
G6	*aph*(4)-Ib	G79	*mdt*G
G7	*aac*(3)-Xa	G80	*qac*F_H
G8	*aac*A43	G81	*cop*A
G9	*aac*(6')-IIa	G82	*mep*A
G10	*aad*A17	G83	*nim*E
G11	*aph*(6)-Ia	G84	*sug*E
G12	*aac*(3)-Ia	G85	*qac*H_351
G13	*aac*(6')-Ir	G86	*emr*D
G14	*aac*(3)-iid_iia_iie	G87	*mer*A-marko
G15	*aad*A7	G88	*opr*D
G16	*aac*(6')-Ib	G89	*ttg*A
G17	*aad*A	G90	*vga*B
G18	*aac*(6')-IIc	G91	*ars*A
G19	*aad*A2	G92	*czc*A
G20	*ant*(2'')-Ia	G93	*mel*_1
G21	*aph*(6)-Ic	G94	multidrug resistance
G22	*aac*(3)-Ib	G95	*mdt*A
G23	*aac*(3)-IV	G96	*mex*A
G24	*aac*(6')-Iz	G97	*optr*A
G25	*aph*(3')-Ib	G98	*pbr*T
G26	*aac*(6')-Ij	G99	*ttg*B
G27	*aad*A21	G100	*fab*K
G28	*ant*(4')	G101	*bac*A
G29	*aph*(6)-Id	G102	MCR-1.1
G30	*OXY*-1-1	G103	*flo*R
G31	*IMI* beta-lac	G104	*cat*B9
G32	*OCH* beta-lac	G105	*cml*v
G33	*OXY*-2-1	G106	*cat*B2
G34	*ACT* beta-lac	G107	*cat*Q
G35	*CTX*-M-1_3_15	G108	*cat*B3
G36	*BEL* beta-lac	G109	*cml*A1
G37	*bla*SFO	G110	*cmx*
G38	*cph*A beta-lac	G111	*cml*A5
G39	*MIR* beta-lac	G112	*arr*-3
G40	*pen*A	G113	*sul*A_folP
G41	*TEM* beta-lac	G114	*sul*1

No.	Subtype	No.	Subtype
G42	*dfr*A22	G115	*sul*2
G43	*dfr*A25	G116	*tet*J
G44	*dfr*A27	G117	*tet*A(P)
G45	*dfr*Bmulti	G118	*tet*D
G46	*dfr*A21	G119	*tet*(39)
G47	*qnr*D	G120	*tet*G
G48	*qnr*B4	G121	*tet*A
G49	*qnr*B46_47_48	G122	*tet*R
G50	*qnr*S2	G123	*intI*1
G51	*qep*A_1_2	G124	*mob*A
G52	*qnrvc*1_vc3_vc6	G125	*tnp*A-1
G53	*van*A	G126	*Tp*614
G54	*van*TC	G127	*tnp*A-2
G55	*van*D	G128	*tnp*A-3
G56	*van*B	G129	*tnp*A-7
G57	*van*RB	G130	*TN*5403
G58	*van*TG	G131	ISSm2-Xanthob
G59	*van*HB	G132	*orf*39-IS26
G60	*van*C2_vanC3	G133	IS1111
G61	*van*HD	G134	ISPps1-pseud
G62	*van*YD	G135	ISCR1
G63	*erm*(36)	G136	IS21-ISAs29
G64	*mph*A	G137	IS1247
G65	*erm*E	G138	IS630
G66	*ere*A	G139	ISEcp1
G67	*vat*A	G140	IS6100
G68	*pic*a	G141	IS200-1
G69	*erm*S	G142	*trb*-C
G70	*ole*C	G143	*Inc*P_oriT
G71	*vat*B	G144	pBS228-IncP-1α
G72	*erm*(K)	G145	*IncI*1_repI1
G73	*pik*R2	G146	EAE_05855