

# Effects of Dam Building on Niche Differentiation of Comammox *Nitrospira* in the Main Stream of the Three Gorges Reservoir Area

Shuang Liu, Jiahui Zhang, Yuchun Wang, Mingming Hu, Yufei Bao, Shanze Li, Jie Wen and Jianwei Zhao

**Table S1.** Primer information table.

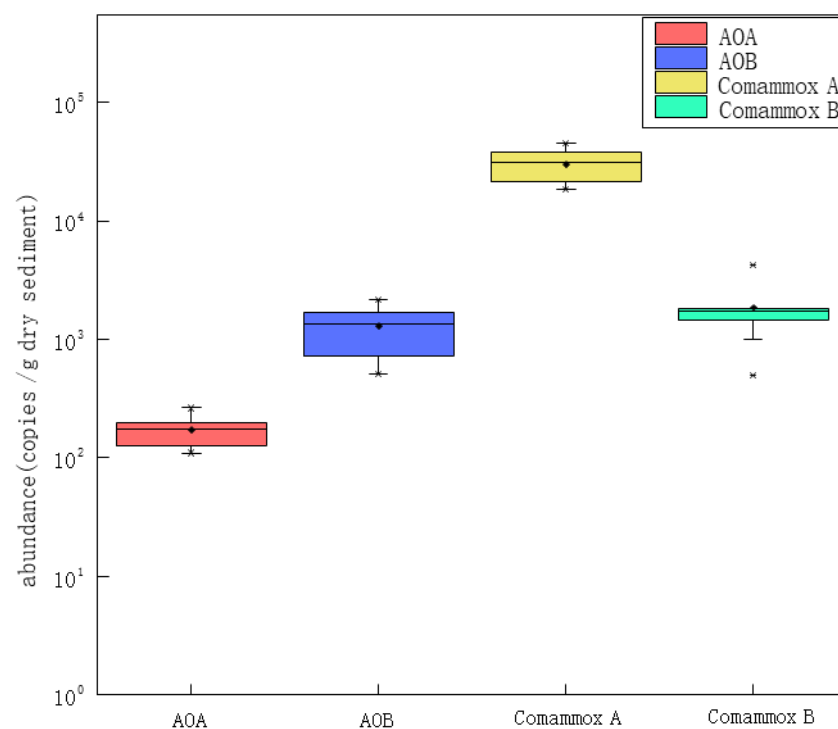
Primer	Primer Sequences(5'-3')	Target Genes	Fragment Length
Arch- <i>amoA</i> F	STAATGGTCTGGCTTAGACG	AOA	635 bp
Arch- <i>amoA</i> R	GCGGCCATCCATCTGTATGT		
<i>amoA</i> -1F9	GGGGTTTCTACTGGTGGT	AOB	491 bp
<i>amoA</i> -2R5	CCCCTCKGSAAAGCCTTCTTC		
CA377f	GTGGTGGTGGTCBAAYTA	Comammox clade	514 bp
C576r	GAAGCCCATRTARTCNGCC	A	
CB377f	GTACTGGTGGGCBAAYTT	Comammox clade	514bp
C576r	GAAGCCCATRTARTCNGCC	B	

**Table S2.** Physiochemical properties of Overlying water.

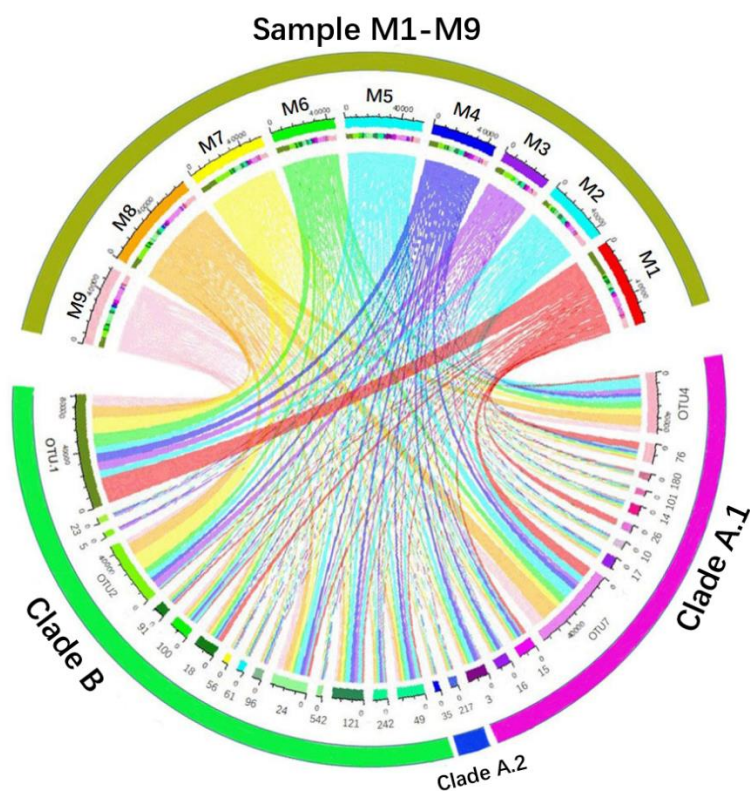
Samples	pH	Temp°C	ODO (mg/L)	Depth
M1	8.80	13.75	8.11	22.78
M2	8.48	14.84	7.78	32.63
M3	8.43	14.86	7.80	51.08
M4	8.38	14.75	7.67	25.00
M5	8.35	14.97	7.52	68.10
M6	8.24	16.64	7.70	75.05
M7	8.20	17.01	7.20	64.40
M8	8.12	17.33	7.21	41.10
M9	7.95	17.70	7.12	44.30

**Table S3.** Alpha diversity index table.

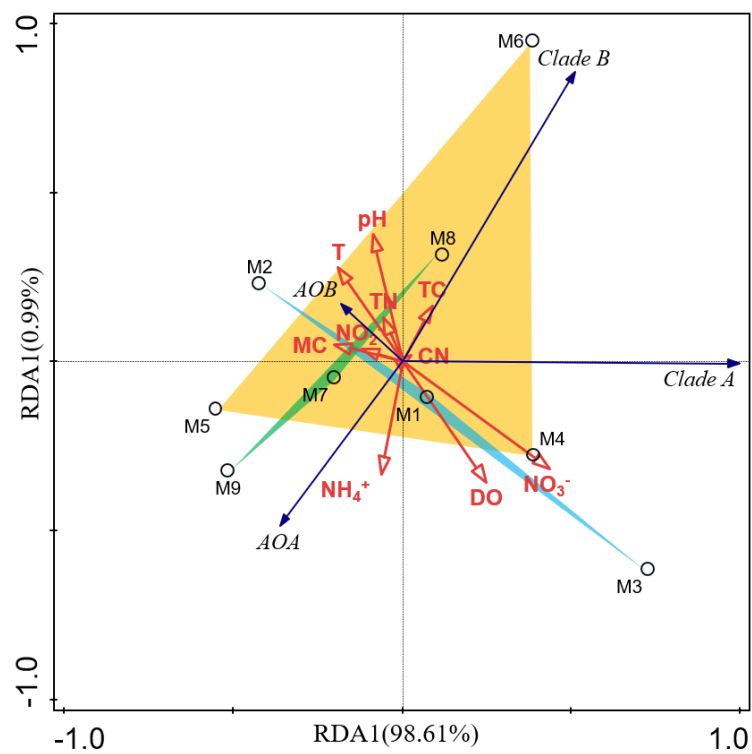
Samples	Chao1	Observed Species	Shannon	1/Simpson
M1	2313.803	1023	6.000043	1.075822
M2	3541.417	1488	7.077517	1.033667
M3	3533.107	1421	6.796417	1.03883
M4	3312.107	1359	7.09556	1.024485
M5	3336.687	1330	6.9727	1.028216
M6	3202.747	1343	6.71804	1.041933
M7	2816.747	1162	6.225903	1.065936
M8	2480.113	1073	6.277263	1.051573
M9	2618.51	967	6.236127	1.044294



**Figure S1.** Total abundance of AOA, AOB, comammox clade A and comammox clade B *amoA* in samples.



**Figure S2.** The distribution of 29 dominant OTUs at different sampling sites. The 9 sampling points and 29 OTUs are represented by different colors.



**Figure S3.** Redundancy analysis of comammox clade A, comammox clade B, AOA and AOB *amoA* abundances at sampling sites.