



Figure S1. Venn diagram showing the unique and shared OTUs in libraries representing samples of water (W) and sediment (S).

Table S1. Richness and diversity of ammonia-oxidizing bacterial communities in each water samples

Sample ID	Reads	0.97		
		OTU	Ace	Shannon
MW11	1791	85	106(94,134)	3.43(3.37,3.49)
MW12	3159	110	140(124,173)	3.49(3.45,3.53)
MW13	1020	71	130(105,170)	3.32(3.25,3.39)
MW21	2660	85	110(96,141)	3.18(3.13,3.23)
MW22	1637	76	123(103,159)	3.24(3.18,3.3)
MW23	2064	80	96(86,119)	3.23(3.18,3.29)
MW31	1571	77	119(101,153)	3.35(3.29,3.4)
MW32	2833	72	83(76,103)	3.3(3.26,3.33)
MW33	1135	68	110(91,144)	3.31(3.24,3.37)
JW11	5993	102	112(106,128)	3.28(3.25,3.31)
JW12	4218	88	116(101,151)	3.26(3.22,3.29)
JW13	1603	71	89(78,115)	3.22(3.16,3.28)
JW21	3932	92	108(99,132)	3.25(3.21,3.29)
JW22	4390	92	107(98,130)	3.23(3.19,3.26)
JW23	4199	98	126(111,158)	3.15(3.11,3.19)
JW31	1828	72	114(95,147)	3.08(3.02,3.13)
JW32	4287	88	106(96,131)	2.97(2.93,3)
JW33	4561	91	109(99,134)	3.17(3.14,3.2)
SW11	5978	119	140(129,165)	3.26(3.23,3.29)
SW12	4639	102	118(109,139)	3.2(3.16,3.24)
SW13	4500	105	120(112,141)	3.2(3.16,3.24)
SW21	5758	113	130(120,152)	3.37(3.34,3.41)
SW22	4236	122	153(137,186)	3.49(3.45,3.52)
SW23	5094	115	130(121,149)	3.45(3.41,3.48)
SW31	6650	112	134(122,159)	3.38(3.35,3.41)
SW32	2813	101	115(107,135)	3.57(3.53,3.61)
SW33	4788	98	117(106,143)	3.31(3.28,3.35)
OW11	2987	84	95(88,112)	3.18(3.14,3.23)
OW12	6766	106	133(118,165)	3.05(3.02,3.09)
OW13	5159	99	115(106,136)	3.09(3.05,3.13)
OW21	4423	105	162(140,198)	3.06(3.02,3.11)
OW22	3552	93	120(105,153)	3.15(3.11,3.2)
OW23	3576	97	155(132,194)	3.01(2.96,3.06)
OW31	8006	96	119(106,153)	3(2.97,3.04)
OW32	6684	106	132(118,161)	3.02(2.99,3.06)
OW33	6441	88	105(95,130)	2.99(2.96,3.03)

Table S2. Richness and diversity of ammonia-oxidizing bacterial communities in each sediment samples

Sample ID	Reads	0.97		
		OTU	Ace	Shannon
MS11	7180	140	169(154,199)	3.21(3.17,3.25)
MS12	6960	129	168(149,207)	3(2.97,3.04)
MS13	6242	122	143(132,167)	3.07(3.03,3.11)
MS21	3591	124	146(135,171)	3.39(3.34,3.44)
MS22	2165	106	139(122,173)	3.27(3.21,3.33)
MS23	4824	124	148(136,175)	3.23(3.18,3.27)
MS31	3547	109	139(123,171)	2.9(2.84,2.95)
MS32	3783	109	134(121,163)	2.98(2.93,3.03)
MS33	4628	128	150(138,174)	3.07(3.02,3.12)
JS11	4307	128	158(143,188)	3.14(3.09,3.19)
JS12	2676	124	148(136,174)	3.35(3.29,3.42)
JS13	3417	130	163(147,195)	3.32(3.26,3.37)
JS21	2341	136	163(149,190)	3.7(3.64,3.76)
JS22	4071	158	195(178,229)	3.64(3.59,3.69)
JS23	1099	113	147(130,179)	3.55(3.45,3.64)
JS31	7062	138	155(146,176)	3.09(3.05,3.13)
JS32	5746	134	160(147,187)	3.2(3.16,3.24)
JS33	4705	125	146(135,169)	3.26(3.21,3.3)
SS11	4472	133	156(144,181)	3.03(2.98,3.08)
SS12	2580	110	138(123,166)	3.07(3.01,3.13)
SS13	5563	137	170(154,203)	3.07(3.03,3.11)
SS21	6230	130	149(139,171)	2.94(2.89,2.98)
SS22	4126	120	154(137,188)	2.84(2.78,2.89)
SS23	5098	132	155(143,179)	3.01(2.96,3.06)
SS31	6356	132	150(141,171)	2.8(2.76,2.85)
SS32	6493	130	150(139,173)	2.87(2.83,2.91)
SS33	6532	147	171(159,196)	2.98(2.94,3.03)
OS11	1902	96	165(139,206)	3.03(2.96,3.1)
OS12	3972	122	148(135,176)	3.15(3.1,3.2)
OS13	1965	111	138(124,166)	3.2(3.13,3.28)
OS21	5717	127	148(137,172)	3(2.96,3.04)
OS22	5266	132	164(148,196)	2.99(2.94,3.04)
OS23	4005	124	139(131,158)	2.96(2.91,3.02)
OS31	4673	132	149(140,169)	2.85(2.8,2.9)
OS32	5192	133	159(146,187)	2.97(2.92,3.02)
OS33	5031	146	170(158,194)	2.94(2.89,3)