Supplementary Table 2. Frequency that each bacterial phylum was found across each of the environmental categories.

	Aerosol	Brackish	Brackish sediment	Freshwater	Freshwater sediment	Marine	Marine sediment	Hydrothermal vent	Ice	Aquatic other	Digesters	Food-associated	Industrial/mining	Pollution associated	Built other	Plant root	Plant surface	Plant other	Agricultural soil	Desert soil	Permafrost	Other soils	Vertebrate	Arthropod	Other invertebrate	Other zoological	Other	Total
Firmicutes	938	85	68	1412	1615	4893	2138	1408	183	1024	7717	7858	2487	3889	2023	3230	911	3372	2573	585	282	8846	359337	2111	662	2060	3097	471313
Proteobacteria	1897	678	209	11225	4114	51071	11012	5428	1109	4297	10949	3261	8826	18345	3906	10950	2622	3311	3708	568	691	21170	133087	6251	4152	7359	9941	406168
Actinobacteria	387	27	8	2798	477	3054	2867	169	253	592	822	241	889	6187	1090	2413	559	1006	911	696	424	10423	159676	919	487	213	1626	218555
Bacteroidetes	111	132	39	2307	16042	20372	1913	672	361	697	4361	170	1043	4264	328	653	183	1153	340	187	109	3918	92724	1138	704	321	1582	162030
Chloroflexi	7	9	6	215	285	11671	1636	280	3	146	3443	11	368	872	124	167	60	97	187	283	21	1556	305	11	331	14	291	22879
Cyanobacteria	20	18	0	1092	34	8322	218	322	32	185	63	38	112	75	66	22	320	43	82	343	147	999	646	28	198	25	1107	17305
Acidobacteria	10	1	19	295	259	510	647	172	12	150	500	15	505	1191	97	841	61	132	1571	106	108	7021	455	63	316	6	289	15731
Planctomycetes	11	15	10	280	151	7304	1454	260	32	276	765	21	347	746	60	195	3	117	128	36	20	1103	493	95	156	81	302	15137
Spirochaetae	4	6	3	44	77	5648	241	42	1	54	385	3	110	129	18	2	0	3	1	8	0	84	1484	1167	30	9	86	11435
Fusobacteria	1	0	1	3	7	17	36	15	0	1	24	3	11	2	20	0	0	0	0	0	0	10	8478	3	1	436	15	9424
Verrucomicrobia	5	4	1	332	77	3266	107	98	17	75	93	0	118	396	35	199	2	51	65	37	28	709	2157	65	81	71	98	8396
Tenericutes	0	1	1	22	15	31	12	8	1	0	242	14	34	57	6	2	70	57	2	0	0	20	2338	94	56	58	17	5628
Lentisphaerae	0	7	3	47	42	2180	162	13	0	14	233	0	22	38	7	0	0	13	1	4	0	32	633	12	39	12	8	3559
Nitrospirae	10	1	4	260	107	78	289	96	0	213	120	23	263	178	58	98	0	12	55	10	7	648	61	4	43	1	107	2930
Gemmatimonadetes	1	2	8	43	45	241	172	20	2	10	28	2	102	685	21	122	0	27	178	71	12	712	146	3	30	0	70	2856
Atribacteria	0	0	0	5	26	78	2222	21	0	0	84	0	31	16	2	0	0	1	0	2	0	13	2	0	0	0	3	2532
Saccharibacteria	1	2	0	18	7	17	4	4	6	18	79	3	43	374	6	29	13	15	11	8	3	172	1592	22	5	7	24	2532
Fibrobacteres	0	1	0	18	12	1397	30	1	0	4	39	2	3	8	2	1	0	3	3	1	0	19	167	721	12	0	7	2470
Deinococcus-Thermus	14	1	1	61	12	210	16	221	4	27	34	5	161	85	26	8	5	13	11	33	1	193	519	3	2	2	88	2125
Synergistetes	1	0	0	6	13	14	4	10	0	1	884	2	94	44	5	0	0	10	1	0	0	18	557	59	0	1	10	1810
Aminicenantes	0	0	0	16	45	1181	337	22	0	3	30	0	12	20	12	1	0	0	3	1	0	38	0	0	7	0	1	1758
Deferribacteres	0	0	1	18	11	1042	74	31	0	7	27	0	36	20	1	0	0	1	0	1	0	21	185	5	1	0	1	1526
Chlorobi	7	21	1	180	64	277	75	87	1	35	152	0	84	70	38	14	1	11	12	1	19	82	27	16	12	0	49	1413
Armatimonadetes	3	0	0	36	23	417	72	37	2	16	105	4	41	73	5	23	8	21	20	9	7	217	179	2	1	1	22	1383
Marinimicrobia	0	1	0	3	2	1133	42	23	0	7	22	0	5	8	0	2	0	0	0	0	0	20	0	0	0	0	23	1314
Parcubacteria	0	2	0	115	43	320	203	79	1	29	124	0	49	70	16	12	0	9	14	0	1	77	46	0	3	0	22	1249
Kazan-3B-09	0	0	0	1	1	1172	42	1	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1221
Gracilibacteria	4	2	1	34	27	722	52	92	0	15	15	0	11	11	4	1	0	4	0	0	0	20	56	9	5	4	11	1115
Latescibacteria	0	2	2	16	40	608	137	19	0	5	6	0	23	12	2	9	0	3	7	2	0	70	2	0	0	0	14	993
Hydrogenedentes	1	0	0	12	10	615	70	15	0	11	58	0	10	35	2	4	0	1	17	2	0	18	4	1	3	0	21	926
Aquificae	0	0	0	41	0	2	1	632	0	3	0	0	1	0	0	0	0	0	0	0	0	3	2	0	0	1	71	890
Thermotogae	0	0	0	7	8	40	9	88	0	2	367	0	102	30	2	2	0	4	1	1	0	22	0	0	0	0	9	792
TM6	1	1	0	28	19	320	113	7	1	16	36	2	29	34	2	13	0	19	2	0	1	75	19	0	3	9	27	789
Microgenomates	1	0	0	40	46	171	83	22	0	23	63	0	33	106	13	9	0	8	13	1	1	70	19	0	1	1	14	762
Chlamydiae	0	0	0	39	6	9	6	0	0	16	1	0	1	1	2	0	0	0	0	0	0	16	158	1	0	2	8	720
Omnitrophica	1	0	0	11	10	398	85	9	0	12	25	0	16	4	1	1	0	3	0	0	1	6	6	0	3	0	3	599
TA06	0	0	1	14	15	201	150	23	0	8	111	0	6	11	2	0	0	0	1	0	0	14	0	0	1	0	0	563
OP3	0	0	0	38	31	229	128	9	0	12	15	0	18	16	2	5	0	1	4	0	0	30	3	0	0	0	9	559
Cloacimonetes	0	0	0	15	12	13	4	2	0	3	351	2	10	16	1	0	0	0	0	0	0	4	2	7	0	0	1	469
Elusimicrobia	0	1	0	28	5	9	15	18	0	3	9	0	18	25	2	7	0	3	9	1	1	57	47	179	0	0	5	449
Acetothermia	0	2	0	56	7	25	146	18	0	4	3	0	4	3	1	0	0	0	0	5	0	4	0	0	0	0	8	298
Aerophobetes	0	0	0	6	0	4	237	3	0	1	0	2	1	1	0	0	0	0	0	0	0	5	0	0	0	0	2	269
Caldiserica	0	0	0	2	0	141	2	9	0	1	55	0	4	14	1	0	0	2	0	0	0	3	0	0	0	0	5	243
Hyd24-12	0	0	0	3	6	196	14	6	0	0	6	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	235
WS6	0	0	0	4	11	93	41	6	0	8	13	1	30	10	0	0	0	1	1	0	0	5	4	0	0	0	5	234
SR1	0	0	0	7	0	119	1	11	0	0	8	0	6	2	0	0	0	0	1	0	0	3	17	2	1	0	0	178
PAUC34f	0	0	0	3	0	46	10	3	0	0	1	0	2	0	0	0	0	0	0	1	0	2	7	0	42	0	2	172
SHA-109	3	0	0	5	4	16	8	1	0	0	13	1	9	4	0	1	0	0	1	0	0	18	79	1	2	1	2	170
WD272	0	0	0	2	2	0	0	0	1	4	1	0	3	7	0	4	0	0	0	3	0	108	1	0	0	0	1	139
Thermodesulfobacteria	0	0	0	7	0	0	1	83	0	0	0	0	4	1	0	0	0	0	0	0	0	1	0	0	0	0	0	115
SM2F11	0	0	0	9	0	56	5	1	0	0	3	0	0	0	0	15	0	0	1	0	0	2	5	0	0	0	0	98
WCHB1-60	0	0	0	3	2	1	1	0	0	0	6	0	2	16	1	2	0	1	4	0	0	19	5	0	0	0	2	67
JL-ETNP-Z39	0	0	0	4	3	12	10	0	0	0	0	0	0	4	0	0	0	0	1	0	0	9	0	0	1	0	1	45
CKC4	0	0	0	0	0	0	1	0	0	0	1	0	0	2	0	0	0	0	0	0	0	1	17	1	0	13	0	42
LCP-89	0	0	0	1	2	5	13	1	0	1	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0	0	32
GOUTA4	0	0	0	7	2	1	2	1	0	1	2	0	2	1	0	2	0	1	0	0	0	3	0	0	0	0	1	27
Dictyoglomi	0	0	0	1	0	1	0	9	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
SBYG-2791	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
GAL08	0	0	0	2	0	0	0	7	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	15
Chrysiogenetes	0	0	0	0	0	0	3	0	0	0	1	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	13
Calescamantes	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
LD1-PA38	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	9
OC31	0	0	0	0	0	0	1	0	0	1	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	7
RsaHF231	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0	0	6
S2R-29	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Total	3439	1022	387	21299	23874	129986	27382	10636	2022	8034	32500	11685	16150	38213	8010	19059	4818	9529	9940	3006	1884	58723	765749	12994	7392	10708	19111	1406773