Supplemental Table 1. Description of environmental categories and the criteria used to assign sequences to each category.

Coarse	Fine	Description
Aerosol		Any sample taken from an atmosphere or aerosolized environment. Very rarely used.
Aquatic	Brackish	Any sample taken from a brackish or low-salt environment. Includes estuaries, brackish lakes, and other interfaces between salt and freshwater.
	Brackish sediment	A sample taken from soil or sediment layer of a body of water classified as Aquatic Brackish. Often used on brackish mud flats.
	Freshwater	Any freshwater sample. Includes rivers, ponds, aquifers, drinking water, and aquaculture habitats.
	Freshwater sediment	Any sample taken from the soil or sediment from any body of water that would be classified as Aquatic Freshwater.
	Marine	Any water sample from the ocean or any other saline aquatic source of water, including salt pans and salt lakes.
	Marine sediment	Any sample taken from the soil or sediment from any body of water that would be classified as Aquatic Marine.
	Hydrothermal vent	A sample taken from a hot spring or undersea vent, and any associated sediments.
	Ice	Icy samples. Includes glaciers, icebergs, and snowmelt.
	Other	A sample that eludes classification or had no specification.
Built	Digesters	A digester or other bioprocessing facility. Includes digesters, sewage treatment plants, microbial fuel production facilities, enrichment cultures that were found to degrade a certain compound, and septic tanks.
	Food-associated	A sample taken from human food or drink.
	Industrial/mining	A sample taken from an industrial process or a mine (active or abandoned). Includes factories, mines, and chemical plants.
	Pollution associated	Any sample found in an environment found with a pollutant or contaminant such as oil spills and environmental industrial waste. Much overlap with industrial.
	Other	A human built environment that eludes any above classification. Many clinical surfaces.
Plant associated	Plant root	Any sample taken from the root area of the plant. Includes rhizospheric soil and nodules.
	Plant surface	Any sample taken from the leaf, stem, or fruit surface of a plant. Used rarely because it usually isn't specified.
	Other	Any plant-associated sample that doesn't fit above classifications.
Soil	Agricultural soil	Any sample taken from farmland or garden soil. Sometimes overlapped with PR, but usually this category was used when the soil was not taken from rhizosphere.
	Desert soil	Any sample from arid or desert soil or sand. Includes desert rocks.
	Permafrost	Any sample taken from permafrost soil or from subglacial rock or soil.
	Other	Any sample that didn't fit above categories. Includes caves. Commonly used.
Zoological	Vertebrate	Any vertebrate-associated sample. Body parts and animal fluids were often assumed to be human when not specified and thus put into this category.
	Arthropod	Any arthropod-associated sample. Includes larvae and feces.
	Other invertebrate	Any invertebrate animal that wasn't arthropod or vertebrate.
	Other	Any unspecified sample that could not be reasonably assumed to be human.
Other		Any sample that truly evaded all classification. The weirdest of the weird reside here.

Supplementary Table 2. Frequency that each bacterial phylum was sequenced before and after 2006.

Phylum	<2006 and Before	After 2006	Total	Ratio of Ratios
Firmicutes	28567	448414	476981	1.17
Proteobacteria	34904	377724	412628	0.81
Actinobacteria	9524	210455	219979	1.65
Bacteroidetes	13869	135811	149680	0.73
Chloroflexi	1001	22337	23338	1.67
Cyanobacteria	1401	16781	18182	0.9
Acidobacteria	1168	14707	15875	0.94
Planctomycetes	822	14719	15541	1.34
Spirochaetae	1385	10406	11791	0.56
Fusobacteria	384	9074	9458	1.77
Verrucomicrobia	524	8084	8608	1.15
Tenericutes	1088	4618	5706	0.32
Lentisphaerae	117	3488	3605	2.23
Nitrospirae	324	2665	2989	0.62
Gemmatimonadetes	185	2725	2910	1.1
Saccharibacteria	120	2456	2576	1.53
Fibrobacteres	127	2413	2540	1.42
Atribacteria	38	2481	2519	4.89
Deinococcus-Thermus	357	1795	2152	0.38
Synergistetes	118	1709	1827	1.08
Aminicenantes	39	1692	1731	3.25
Deferribacteres	58	1490	1548	1.92
Chlorobi	155	1260	1415	0.61
Armatimonadetes	93	1319	1412	1.06
Marinimicrobia (SAR406 clade)	55	1260	1315	1.71
Parcubacteria	121	1169	1290	0.72
Kazan-3B-09	12	1224	1236	7.63
Gracilibacteria	33	1092	1125	2.48
Latescibacteria	47	950	997	1.51
Hydrogenedentes	33	922	955	2.09
Aquificae	592	321	913	0.04
Thermotogae	121	684	805	0.42
TM6	41	752	793	1.37
Microgenomates	141	617	758	0.33
Chlamydiae	169	552	721	0.24
Omnitrophica	16	617	633	2.89
TA06	28	546	574	1.46
OP3	36	536	572	1.11
Elusimicrobia	61	396	457	0.49
Cloacimonetes	135	307	442	0.17
Acetothermia	19	280	299	1.1
Aerophobetes	15	262	277	1.31
Caldiserica	23	229	252	0.75
Hyd24-12	8	234	242	2.19
WS6	36	199	235	0.41
SR1	4	186	190	3.48
SHA-109	7	168	175	1.8
PAUC34f	6	164	170	2.05
WD272	14	125	139	0.67
Thermodesulfobacteria	73	45	118	0.05
SM2F11	5	102	107	1.53
WCHB1-60	9	61	70	0.51
JL-ETNP-Z39	2	43	45	1.61
CKC4	0	41	41	NA
LCP-89	4	28	32	0.52
GOUTA4	5	26	31	0.39
Dictyoglomi	4	24	28	0.45
GAL08	4	13	17	0.24
SBYG-2791	0	16	16	NA
Chrysiogenetes	2	11	13	0.41
LD1-PA38	3	6	9	0.15
OC31	0	7	7	NA
RsaHF231	1	6	7	0.45
Calescamantes	2	1	3	0.04
S2R-29	0	2	2	NA
Total	98255	1312847	1411102	1.00

Supplementary Table 3. Frequency that each archaeal phylum was sequenced before and after 2006.

Phylum	<2006 and Before	After 2006	Total	Ratio of Ratios
Euryarchaeota	3687	24719	28406	0.84
Thaumarchaeota	1032	16850	17882	2.04
Miscellaneous Crenarchaeotic Group	334	3404	3738	1.27
Crenarchaeota	537	643	1180	0.15
Woesearchaeota	114	504	618	0.55
Aenigmarchaeota	62	277	339	0.56
Aigarchaeota	79	223	302	0.35
Marine Hydrothermal Vent Group	7	260	267	4.63
Korarchaeota	39	175	214	0.56
Ancient Archaeal Group	0	191	191	NA
Nanoarchaeota	3	135	138	5.61
Miscellaneous Euryarchaeotic Group	7	78	85	1.39
Nanohaloarchaeota	2	77	79	4.8
Diapherotrites	16	23	39	0.18
SM1K20	4	29	33	0.9
Marine Hydrothermal Vent Group 1	4	9	13	0.28
Parvarchaeota	1	8	9	1
Marine Hydrothermal Vent Group 2	3	0	3	0
Unclassified	3	0	3	0
TVG8AR30	0	2	2	NA
Total	5934	47607	53541	1.00

Supplementary Table 4. 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	939	88	69	1430	956	5000	2184	1459	184	1052	7886	7919	2556	3939	2144	3290	929	3399	2616	614	289	9302	363435	2148	678	2085	3179	476988
Proteobacteria	1921	705	210	11422	3405	53191	11209	5515	1151	4673	11076	3329	9115	18649	4293	11447	2668	3434	3765	570	698	21436	133674	6384	4209	7407	10038	412696
Actinobacteria	388	31	8	2815	454	3161	2894	172	257	619	842	240	904	6226	1110	2454	567	1016	923	701	447	10720	159964	940	492	269	1692	219985
Bacteroidetes	116	132	39	2328	445	21069	1943	684	365	752	4511	170	1062	4289	333	693	186	1157	343	188	110	3839	94839	1147	708	323	1596	149683
Chloroflexi	7	14	6	220	268	11894	1712	295	3	153	3504	11	386	894	124	165	60	97	187	283	21	1586	314	11	331	16	291	23340
Cyanobacteria	20	28	1	1098	28	9100	216	325	33	237	66	38	112	75	72	22	320	44	82	342	147	992	652	28	198	30	1126	18182
Acidobacteria	9	6	19	295	241	518	648	174	12	181	504	15	506	1215	97	839	61	134	1563	106	108	7079	454	63	317	8	308	15881
Planctomycetes	11	16	10	319	153	7516	1464	265	31	311	778	21	346	751	64	196	3	124	130	36	20	1163	496	95	154	81	302	15542
Spirochaetae	4	7	3	44	55	5803	246	42	1	55	403	3	111	129	18	2	0	3	1	8	0	71	1508	1183	30	10	85	11792
Fusobacteria	1	0	1	3	6	18	36	17	0	10	24	3	11	2	20	0	0	0	0	0	0	11	8494	3	1	440	15	9458
Verrucomicrobia	5	7	1	328	77	3337	107	99	17	93	95	0	117	397	35	200	2	88	66	37	28	731	2207	65	82	71	100	8608
Tenericutes	0	1	1	22	4	31	12	8	1	0	257	14	34	57	6	2	68	56	2	0	0	21	2373	94	57	58	17	5734
Lentisphaerae	0	7	3	47	42	2237	163	13	0	14	233	0	21	38	6	0	0	11	1	4	0	26	631	11	39	12	8	3605
Nitrospirae	10	5	4	262	91	77	291	96	0	237	121	23	275	183	58	98	0	13	55	10	7	671	61	4	43	2	108	2990
Gemmatimonadetes	1	2	8	42	43	245	176	20	2	15	29	2	102	695	21	123	0	28	178	71	12	738	149	3	30	0	71	2912
Saccharibacteria	4	3	0	23	7	18	4	4	6	22	80	3	43	374	6	29	13	15	11	8	3	182	1609	22	5	8	24	2576
Fibrobacteres	0	1	0	18	12	1429	30	2	0	8	42	2	3	8	2	1	0	3	3	1	0	17	199	721	12	0	7	2540
Atribacteria	0	0	0	0	28	78	2222	21	0	0	85	0	31	16	2	0	0	1	0	2	0	13	2	0	0	0	3	2519
Deinococcus-Thermus	14	1	1	61	12	216	16	227	4	30	34	5	162	86	30	8	5	13	11	33	1	198	519	3	2	2	89	2152
Synergistetes	1	0	0	6	13	16	4	10	0	1	895	2	95	44	5	0	0	10	1	0	0	18	560	59	0	1	10	1827
Aminicenantes	0	0	0	9	42	1193	337	22	0	3	30	0	9	17	12	1	0	0	3	1	0	38	0	0	7	0	1	1731
Deferribacteres	0	0	1	20	11	1058	74	31	0	8	28	0	39	20	1	0	0	1	0	1	0	20	185	5	1	0	1	1548
Chlorobi	7	21	1	186	57	285	75	88	1	36	155	0	85	73	38	14	1	11	13	1	19	63	28	16	12	0	49	1415
Armatimonadetes	3	2	0	36	21	424	72	38	2	17	107	4	41	74	5	23	9	30	20	9	7	224	179	2	1	1	23	1413
Marinimicrobia	0	1	0	1	1	1149	42	23	0	7	23	0	4	8	0	2	0	0	0	0	0	20	0	0	0	0	23	1315
Parcubacteria	0	5	0	118	36	328	207	83	1	31	151	0	48	70	16	11	0	9	14	0	1	76	50	0	3	0	22	1291
Kazan-3B-09	0	0	0	1	2	1181	47	1	0	2	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	1236
Gracilibacteria	4	2	1	34	19	744	52	96	0	18	15	0	11	11	4	1	0	4	0	0	0	10	57	9	5	4	11	1126
Latescibacteria	0	2	2	16	40	614	137	19	0	5	7	0	23	11	2	9	0	3	7	2	0	71	2	0	0	0	14	998
Hydrogenedentes	1	0	0	13	10	640	70	15	0	12	62	0	10	35	2	4	0	1	17	2	0	18	4	1	3	0	21	955
Aquificae	0	0	0	46	0	2	1	650	0	3	0	0	1	0	0	0	0	0	0	0	0	3	2	0	0	1	71	913
Thermotogae	0	0	0	7	8	39	9	89	0	2	368	0	106	30	2	2	0	7	1	1	0	21	0	0	0	0	9	805
TM6	1	1	0	27	11	327	114	7	1	19	36	2	29	34	2	13	0	19	2	0	1	75	19	0	3	9	27	793
Microgenomates	1	1	0	38	28	172	83	23	0	32	64	0	33	104	13	9	0	8	13	1	1	77	20	0	1	1	14	758
Chlamydiae	0	0	0	40	6	9	6	0	0	16	1	0	1	1	2	0	0	0	0	0	0	15	159	1	0	2	8	721
Omnitrophica	1	1	0	42	9	402	85	9	0	13	25	0	16	4	1	1	0	3	0	0	1	6	6	0	3	0	3	633
TA06	0	0	1	14	15	206	152	24	0	8	114	0	6	11	2	0	0	0	1	0	0	14	0	0	1	0	0	574
OP3	0	0	0	40	31	234	130	9	0	18	15	0	18	16	2	5	0	1	4	0	0	29	3	0	0	0	9	573
Elusimicrobia	0	1	0	28	2	9	15	18	0	13	9	0	18	25	2	7	0	4	9	1	1	57	47	179	0	0	5	457
Cloacimonetes	0	0	0	9	9	6	3	1	0	2	356	2	16	15	1	0	0	0	0	0	0	4	2	7	1	0	1	442
Acetothermia	0	2	0	56	7	24	148	18	0	4	3	0	4	3	1	0	0	0	0	5	0	4	0	0	0	0	8	299
Aerophobetes	0	0	0	20	0	4	234	2	0	1	0	2	1	1	0	0	0	0	0	0	0	5	0	0	0	0	2	277
Caldiserica	0	0	0	2	0	142	8	9	0	1	57	0	4	14	1	0	0	3	0	0	0	2	0	0	0	0	5	252
Hyd24-12	0	0	0	3	6	203	14	6	0	0	6	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	1	242
WS6	0	1	0	4	6	94	44	6	0	8	13	1	30	10	0	0	0	1	1	0	0	5	5	0	0	0	5	235
SR1	0	0	0	8	0	124	1	12	0	8	8	0	6	2	0	0	0	0	1	0	0	0	17	2	1	0	0	190
SHA-109	3	0	0	5	4	17	8	1	0	0	13	1	9	4	0	1	0	0	1	0	0	18	83	1	2	1	2	175
PAUC34f	0	0	0	2	0	45	10	3	0	0	1	0	2	0	0	0	0	0	0	1	0	2	7	0	42	0	2	170
WD272	0	0	0	2	2	0	0	0	1	5	1	0	3	7	0	4	0	0	0	3	0	108	1	0	0	0	1	140
Thermodesulfobacteria	0	0	0	8	0	0	1	85	0	0	0	0	4	1	0	0	0	0	0	0	0	1	0	0	0	0	0	118
SM2F11	0	0	0	9	0	62	6	1	0	0	3	0	0	0	0	15	0	0	1	0	0	3	5	0	0	0	1	107
WCHB1-60	0	0	0	3	2	1	1	0	0	0	6	0	2	16	1	2	0	1	4	0	0	22	5	0	0	0	2	70
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	3	1	2	1	0	1	2	0	2	1	0	2	0	1	0	0	0	6	0	0	0	0	1	31
Dictyoglomi	0	0	0	1	0	1	0	11	0	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
GAL08	0	0	0	2	0	0	0	9	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	17
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
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
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	1	0	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0	0	7
Calescamantes	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
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	3472	1094	390	21647	6733	134727	27801	10860	2073	8760	33152	11813	16582	38696	8556	19695	4892	9753	10051	3042	1922	59855	773045	13209	7476	10855	19414	1411234

Supplementary Table 5. Frequency that each archaeal 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
Euryarchaeota	2	488	138	598	726	1295	6	4099	5409	535	3688	117	1026	378	511	22	33	0	78	3	5261	1026	646	87	21	53	71	28410
Thaumarchaeota	0	687	274	546	280	805	36	6666	5505	146	843	0	156	36	173	0	108	0	149	35	126	752	116	0	42	0	129	17883
Miscellaneous Crenarchaeotic Group	0	92	107	101	224	357	0	102	2117	36	148	0	43	24	22	0	3	0	9	0	2	272	55	0	4	0	0	3738
Crenarchaeota	0	0	1	24	15	803	0	11	17	2	72	0	10	2	1	0	0	0	0	0	0	20	16	0	0	1	0	1180
Woesearchaeota	0	61	0	75	9	56	0	19	365	3	5	0	4	0	5	0	2	0	0	0	0	1	6	0	0	0	0	618
Aenigmarchaeota	0	8	2	24	59	70	0	21	100	25	1	0	0	0	0	0	0	0	1	0	0	0	20	0	0	0	0	339
Aigarchaeota	0	7	0	12	0	201	0	2	20	4	1	0	4	4	0	0	0	0	0	0	0	2	13	0	0	0	0	302
Marine Hydrothermal Vent Group	0	6	3	2	3	13	0	5	218	5	0	0	0	0	0	0	0	0	0	0	0	3	8	0	0	0	0	267
Korarchaeota	0	0	0	2	0	159	0	3	21	0	6	0	0	0	0	0	0	0	8	1	0	3	2	0	0	0	0	214
Ancient Archaeal Group	0	0	0	0	0	0	0	0	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191
Nanoarchaeota	0	0	0	132	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138
Miscellaneous Euryarchaeotic Group	0	0	0	6	4	10	0	1	61	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	85
Nanohaloarchaeota	0	5	0	11	0	0	0	48	2	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Diapherotrites	0	13	0	1	2	4	0	3	6	1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	39
SM1K20	0	1	0	6	2	6	0	0	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
Marine Hydrothermal Vent Group 1	0	0	0	0	0	10	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Parvarchaeota	0	0	0	0	0	0	0	1	3	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	9
Marine Hydrothermal Vent Group 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Unclassified	0	0	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	3
TVG8AR30	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	2	1368	525	1540	1324	3797	42	10983	14049	772	4764	117	1245	444	716	22	146	0	245	39	5389	2087	882	87	67	54	200	53546

Supplementary Table 6. Frequency that each bacterial sequence or OTU was retrieved by cultivation or by culture-independent methods.

Phylum	Sequences			OTUs		
	Cultured	Uncultured	Total	Cultured	Uncultured	Total
Proteobacteria	119742	292954	412696	9629	25152	34781
Firmicutes	84752	392236	476988	3073	29674	32747
Bacteroidetes	9744	139939	149683	2431	11146	13577
Actinobacteria	41122	178863	219985	2913	5222	8135
Planctomycetes	539	15003	15542	165	5134	5299
Acidobacteria	224	15657	15881	121	4571	4692
Chloroflexi	197	23143	23340	68	2964	3032
Verrucomicrobia	177	8431	8608	99	1396	1495
Cyanobacteria	3541	14641	18182	454	663	1117
Lentisphaerae	18	3587	3605	11	984	995
Fibrobacteres	62	2478	2540	34	784	818
Parcubacteria	2	1289	1291	2	676	678
Saccharibacteria	10	2566	2576	8	621	629
Armatimonadetes	10	1403	1413	6	545	551
Tenericutes	2182	3552	5734	210	275	485
Spirochaetae	2105	9687	11792	145	339	484
Microgenomates	0	758	758	0	468	468
Hydrogenedentes	5	950	955	2	441	443
TM6	5	788	793	3	436	439
Deinococcus-Thermus	554	1598	2152	122	310	432
Gemmatimonadetes	23	2889	2912	12	394	406
Latescibacteria	1	997	998	1	380	381
Gracilibacteria	3	1123	1126	3	376	379
Chlorobi	83	1332	1415	29	349	378
Fusobacteria	534	8924	9458	69	299	368
Marinimicrobia	8	1307	1315	3	322	325
OP3	0	573	573	0	321	321
Aminicenantes	0	1731	1731	0	319	319
TA06	0	574	574	0	287	287
Atribacteria	4	2515	2519	4	218	222
Nitrospirae	112	2878	2990	35	187	222
Deferribacteres	44	1504	1548	21	195	216
Kazan-3B-09	0	1236	1236	0	188	188
WS6	0	235	235	0	146	146
Elusimicrobia	4	453	457	3	143	146
Synergistetes	103	1724	1827	30	115	145
Cloacimonetes	2	440	442	1	134	135
Acetothermia	0	299	299	0	133	133
Caldiserica	4	248	252	2	120	122
SHA-109	0	175	175	0	110	110
Hyd24-12	0	242	242	0	103	103
Aerophobetes	1	276	277	1	96	97
Thermotogae	156	649	805	41	56	97
PAUC34f	1	169	170	1	94	95
Aquificae	211	702	913	50	43	93
SR1	0	190	190	0	83	83
Omnitrophica	0	633	633	0	83	83
Chlamydiae	536	185	721	52	29	81
WD272	0	140	140	0	73	73
SM2F11	0	107	107	0	72	72
WCHB1-60	0	70	70	0	58	58
JL-ETNP-Z39	0	45	45	0	37	37
Thermodesulfobacteria	21	97	118	8	28	36
GOUTA4	0	31	31	0	27	27
LCP-89	0	32	32	0	25	25
CKC4	2	40	42	2	18	20
Dictyoglomi	11	17	28	2	12	14
GAL08	0	17	17	0	11	11
LD1-PA38	0	9	9	0	8	8
OC31	0	7	7	0	6	6
SBYG-2791	0	16	16	0	6	6
RsaHF231	0	7	7	0	5	5
Chrysiogenetes	12	1	13	4	0	4
Calescamantes	0	3	3	0	3	3
S2R-29	0	2	2	0	2	2
Total	266867	1144367	1411234	19870	97515	117385

Supplementary Table 7. Frequency that each archaeal sequence or OTU was retrieved by cultivation or by culture-independent methods.

Phylum	Sequences			OTUs		
	Cultured	Uncultured	Total	Cultured	Uncultured	Total
Euryarchaeota	3352	25058	28410	522	2404	2926
Thaumarchaeota	46	17837	17883	25	896	921
Miscellaneous Crenarchaeotic Group	0	3738	3738	0	355	355
Crenarchaeota	215	965	1180	49	26	75
Woesearchaeota	0	618	618	0	70	70
Aenigmarchaeota	0	339	339	0	51	51
Korarchaeota	2	212	214	2	35	37
Aigarchaeota	0	302	302	0	31	31
Nanoarchaeota	1	137	138	1	24	25
Marine Hydrothermal Vent Group	0	267	267	0	22	22
Ancient Archaeal Group	0	191	191	0	15	15
Nanohaloarchaeota	2	77	79	2	8	10
Diapherotrites	0	39	39	0	8	8
Miscellaneous Euryarchaeotic Group	0	85	85	0	8	8
SM1K20	0	33	33	0	7	7
Marine Hydrothermal Vent Group 1	0	13	13	0	5	5
Marine Hydrothermal Vent Group 2	0	3	3	0	2	2
Parvarchaeota	0	9	9	0	2	2
TVG8AR30	0	2	2	0	2	2
Unclassified	0	3	3	0	2	2
Total	3618	49928	53546	601	3973	4574