



FIGURE S1: Neighbor-joining tree based on the amino acid sequences of the full length of the *phoD* genes. The tree was rooted using the sequence of the *phoX* alkaline phosphatase gene of *Xanthomonas oryzae* (in red).

TABLE S1: Accession numbers in EBI and NCBI databases and taxonomy of reference sequences used for the primer design of the PHOD primers

#	Accession number (EBI or NCBI)	Phylum	Order	Family	Species
1	ENAIEI26313	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium glucuronolyticum</i> ATCC51867
2	ENAIBAF55139	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium glutamicum</i>
3	ENAIBAB99658	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium glutamicum</i> ATCC13032
4	ENAIAFG72794	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium halotolerans</i> DSM44683
5	ENAIAFG73056	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium halotolerans</i> DSM44683
6	ENAIAFG73652	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium halotolerans</i> DSM44683
7	ENAIAAGG67341	Actinobacteria	Actinomycetales	Corynebacteriaceae	<i>Corynebacterium halotolerans</i> DSM44683
8	ENAIAFA75231	Actinobacteria	Actinomycetales	Gordoniaceae	<i>Gordonia polyisoprenivorans</i> VH2
9	ENAIGAC61596	Actinobacteria	Actinomycetales	Gordoniaceae	<i>Gordonia sihwensis</i> NBRC108236
10	ENAIEMP12511	Actinobacteria	Actinomycetales	Gordoniaceae	<i>Gordonia</i> sp
11	ENAIAJG68675	Actinobacteria	Actinomycetales	Mycobacteriaceae	<i>Mycobacterium tuberculosis</i> str NITR203
12	ENAIAFN64192	Actinobacteria	Actinomycetales	Mycobacteriaceae	<i>Mycobacterium tuberculosis</i> complex
13	ENAIAFT99034	Actinobacteria	Actinomycetales	Nocardiaceae	<i>Nocardia brasiliensis</i> ATCC700358
14	ENAIAFU00244	Actinobacteria	Actinomycetales	Nocardiaceae	<i>Nocardia brasiliensis</i> ATCC700358
15	ENAIAFU03643	Actinobacteria	Actinomycetales	Nocardiaceae	<i>Nocardia brasiliensis</i> ATCC700358
16	ENAICCF63942	Actinobacteria	Actinomycetales	Nocardiaceae	<i>Nocardia cyriacigeorgica</i>
17	ENAIEGD25772	Actinobacteria	Actinomycetales	Nocardiaceae	<i>Rhodococcus equi</i> ATCC33707
18	ENAIEJI95441	Actinobacteria	Actinomycetales	Nocardiaceae	<i>Rhodococcus</i> sp JVH1
19	ENAIBAD10394	Actinobacteria	Actinomycetales	Frankiaceae	<i>Frankia</i> sp ccl3
20	ENAIBAW10760	Actinobacteria	Actinomycetales	Frankiaceae	<i>Frankia</i> sp EAN1
21	ENAIAAD44130	Actinobacteria	Actinomycetales	Glycomycetaceae	<i>Stackebrandtia nassauensis</i> DSM44728
22	ENAIAAD45345	Actinobacteria	Actinomycetales	Glycomycetaceae	<i>Stackebrandtia nassauensis</i> DSM44728
23	ENAIAAC40996	Actinobacteria	Actinomycetales	Micrococcinea/Micrococca ceae	<i>Arthrobacter chlorophenolicus</i> A6
24	ENAIAACV06763	Actinobacteria	Actinomycetales	Dermaprocaceae	<i>Kytococcus sedentarius</i> DSM20547
25	ENAIEAQ00942	Actinobacteria	Actinomycetales	Intrasporangiaceae	<i>Janibacter</i> sp HTCC2649
26	ENAICBT74545	Actinobacteria	Actinomycetales	Micrococcaceae	<i>Arthrobacter arilaitensis</i>
27	ENAIEMR00121	Actinobacteria	Actinomycetales	Micrococcaceae	<i>Arthrobacter gangotriensis</i>
28	ENAIAFR30629	Actinobacteria	Actinomycetales	Micrococcaceae	<i>Arthrobacter</i> sp
29	ENAIBAK02451	Actinobacteria	Actinomycetales	Micrococcaceae	<i>Arthrobacter</i> sp FB24
30	ENAIAEV83725	Actinobacteria	Actinomycetales	Micromonosporaceae	<i>Actinoplanes</i> sp SE50
31	ENAIAEV87274	Actinobacteria	Actinomycetales	Micromonosporaceae	<i>Actinoplanes</i> sp SE50
32	ENAIAADL48407	Actinobacteria	Actinomycetales	Micromonosporaceae	<i>Micromonospora aurantiaca</i> ATCC 27029e
33	ENAICCH17164	Actinobacteria	Actinomycetales	Micromonosporaceae	<i>Micromonospora lupini</i>
34	ENAIEEP71055	Actinobacteria	Actinomycetales	Micromonosporaceae	<i>Micromonospora</i> sp ATCC39149
35	ENAIAADB32048	Actinobacteria	Actinomycetales	Nocardiodiaceae	<i>Kribbella flavida</i> DSM17836
36	ENAIAEK40043	Actinobacteria	Actinomycetales	Pseudonocardiaceae	<i>Amycolatopsis mediterranei</i> S699
37	ENAIAADJ48441	Actinobacteria	Actinomycetales	Pseudonocardiaceae	<i>Amycolatopsis mediterranei</i> U32
38	ENAIBAC74775	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces avermitilis</i> MA-4680
39	ENAIAAD110639	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces bingchenggensis</i> BCW
40	ENAIAAD110779	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces bingchenggensis</i> BCW
41	ENAIAAD111949	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces bingchenggensis</i> BCW
42	ENAIAAD112233	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces bingchenggensis</i> BCW
43	ENAIEFG06649	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces clavuligerus</i> ATCC27064
44	ENAICAD55169	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces coelicolor</i>
45	ENAICCK31695	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces davawensis</i> JCM4913
46	ENAIAADW06950	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces flavogriseus</i> ATCC 33331
47	ENAIBAG23089	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces griseus</i> subsp <i>griseus</i> NBRC13350
48	ENAIAEY87979	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces hygrosopicus</i> subsp <i>jinggangensis</i>
49	ENAICBG74762	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces scabiei</i>
50	ENAIAEN08616	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces</i> sp
51	ENAIELP68656	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces turgidiscabies</i>
52	ENAICCA54151	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces venezuelae</i> ATCC10712
53	ENAIAEM83182	Actinobacteria	Actinomycetales	Streptomycetaceae	<i>Streptomyces violaceus niger</i> Tu4113
54	ENAIAFR06971	Actinobacteria	Actinomycetales	Nocardiopsaceae	<i>Nocardiopsis alba</i> ATCCBAA
55	ENAIAFR07079	Actinobacteria	Actinomycetales	Nocardiopsaceae	<i>Nocardiopsis alba</i> ATCCBAA
56	ENAIAADH67544	Actinobacteria	Actinomycetales	Nocardiopsaceae	<i>Nocardiopsis dassonvillei</i> subsp <i>dassonvillei</i> DSM43111
57	ENAIAACV99758	Actinobacteria	Actinomycetales	Thermomonosporaceae	<i>Thermomonospora curvata</i> DSM43183
58	ENAIBAG03284	Actinobacteria	Rubrobacterales	Rubrobacteraceae	<i>Rubrobacter xylanophilus</i> DSM9941
59	ENAIAADB49402	Actinobacteria	Solirubrobacterales	Conexibacteraceae	<i>Conexibacter woesei</i> DSM14684
60	ENAIEKB49993	Bacteroidetes	Cytophagales	Cyclobacteriaceae	<i>Cecembia lonarensis</i> LW9
61	ENAIAEL28382	Bacteroidetes	Cytophagales	Cyclobacteriaceae	<i>Cyclobacterium marinum</i> DSM745
62	ENAIAEL28385	Bacteroidetes	Cytophagales	Cyclobacteriaceae	<i>Cyclobacterium marinum</i> DSM745
63	ENAIAEL28386	Bacteroidetes	Cytophagales	Cyclobacteriaceae	<i>Cyclobacterium marinum</i> DSM745
64	ENAIAFK04199	Bacteroidetes	Cytophagales	Cytophagaceae	<i>Emiticicia oligotrophica</i> DSM17448
65	ENAICCH53780	Bacteroidetes	Cytophagales	Cytophagaceae	<i>Fibrisoma limi</i> BUZ3

66	ENAIADR23105	Bacteroidetes	Cytophagales	Flammeovirgaceae	<i>Marivirga tractuosa</i> DSM4126
67	ENAIAEA43205	Bacteroidetes	Flavobacteriales	Cryomorphaceae	<i>Fluvicicola taffensis</i> DSM16823
68	ENAIADV50039	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Cellulophaga algicola</i> DSM14237
69	ENAIADV51026	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Cellulophaga algicola</i> DSM14237
70	ENAIADY28100	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Cellulophaga lytica</i> DSM7489
71	ENAIIEFK37022	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Chryseobacterium gleum</i> ATCC35910
72	ENAIIEW86730	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Flavobacterium columnare</i> ATCC49512
73	ENAIIEE19783	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Krokinobacter</i> sp 4H-3-7-5
74	ENAIEM69324	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Muricauda ruestringensis</i> DSM13258
75	ENAIQA41320	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Polaribacter</i> sp MED152
76	ENAIADQ82175	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Riemerellaanati pestifer</i> ATCC11845
77	ENAIACCF99636	Bacteroidetes	Flavobacteriales	Flavobacteriaceae	<i>Flavobacteriia bacterium</i>
78	ENAIACBH25587	Bacteroidetes	Incertaesedis(II)	Rhodothermaceae	<i>Salinibacter ruber</i> M8
79	ENAIIEE48088	Bacteroidetes	Sphingobacteriales	Saprosiraceae	<i>Haliscomenobacte rhydhrossis</i> DSM1100
80	ENAIIEE49081	Bacteroidetes	Sphingobacteriales	Saprosiraceae	<i>Haliscomenobacte rhydhrossis</i> DSM1100
81	ENAI AFC23630	Bacteroidetes	Sphingobacteriales	Saprosiraceae	<i>Saprosira grandis</i>
82	ENAI AFZ31505	Cyanobacteria	Chroococcales	Gloeocapsa	<i>Gloeocapsa</i> sp PCC7428
83	ENAI AFZ33354	Cyanobacteria	Chroococcales	Gloeocapsa	<i>Gloeocapsa</i> sp PCC7428
84	ENAI AFZ44148	Cyanobacteria	Chroococcales	Halotheccluster	<i>Halotheca</i> sp PCC7418A
85	ENAI ABD00626	Cyanobacteria	Chroococcales	Synechococcus	<i>Synechococcus</i> sp JA-3-3Ab
86	ENAI ABD01669	Cyanobacteria	Chroococcales	Synechococcus	<i>Synechococcus</i> sp JA-3-3Ab
87	ENAI AFZ57827	Cyanobacteria	Nostocales	Nostocaceae	<i>Anabaena cylindrica</i> PCC7122
88	ENAI ABA21870	Cyanobacteria	Nostocales	Nostocaceae	<i>Anabaena variabilis</i> ATCC 29413
89	ENAI ABA22311	Cyanobacteria	Nostocales	Nostocaceae	<i>Anabaena variabilis</i> ATCC 29413
90	ENAI ABA23729	Cyanobacteria	Nostocales	Nostocaceae	<i>Anabaena variabilis</i> ATCC 29413
91	ENAI ACC82149	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc punctiforme</i> PCC73102
92	ENAI AFY41332	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc</i> sp PCC7107
93	ENAI AFY43518	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc</i> sp PCC7107
94	ENAI BA000019	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc</i> sp PCC7120
95	ENAI BAB76675	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc</i> sp PCC7120
96	ENAI BAB77731	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc</i> sp PCC7120
97	ENAI AFY49531	Cyanobacteria	Nostocales	Nostocaceae	<i>Nostoc</i> sp PCC7524
98	ENAI AFZ03230	Cyanobacteria	Nostocales	Rivulariaceae	<i>Calothrix</i> sp PCC6303
99	ENAI AFY52909	Cyanobacteria	Nostocales	Rivulariaceae	<i>Rivularia</i> sp PCC7116
100	ENAI AFZ20635	Cyanobacteria	Oscillatoriales	Microcoleus	<i>Microcoleus</i> sp PCC7113
101	ENAI ACK70604	Cyanobacteria	Oscillatoriophycideae	Chroococcales	<i>Cyanotheca</i> sp PCC-7424
102	ENAI AFY86481	Cyanobacteria	Pleurocapsales	Chroococcidiopsis	<i>Chroococcidiopsis thermalis</i> PCC7203
103	ENAI AFY90141	Cyanobacteria	Pleurocapsales	Chroococcidiopsis	<i>Chroococcidiopsis thermalis</i> PCC7203
104	ENAI ADY27657	Deinococcus-Thermus	Deinococcales	Deinococcaceae	<i>Deinococcus proteolyticus</i>
105	ENAI ADH62171	Deinococcus-Thermus	Thermales	Thermaceae	<i>Meiothermus silvanus</i> DSM9946
106	ENAI AFZ89285	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus amyloliquefaciens</i> subsp plantarum AS43
107	ENAI AEB22432	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus amyloliquefaciens</i> TA208
108	ENAI ADP34908	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus atrophaeus</i> 1942
109	ENAI AAU39240	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus licheniformis</i> DSM13
110	ENAI ADE72073	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus megaterium</i> QMB1551
111	ENAI AEN87067	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus megaterium</i> WSH-002
112	ENAI AFI26806	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus</i> sp JS
113	ENAI EKV74755	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus</i> sp.2 A 57 CT2
114	ENAI ADV95192	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus subtilis</i> BSn5
115	ENAI ADM36326	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus subtilis</i> subsp spizizenii str W23
116	ENAI AEP85178	Firmicutes	Bacillales	Bacillaceae	<i>Bacillus subtilis</i> subsp spizizenii TU-B-10
117	ENAI AFH59845	Firmicutes	Bacillales	Paenibacillaceae	<i>Paenibacillus mucilaginosus</i> K02
118	ENAI EGK13909	Firmicutes	Bacillales	Thermoactinomycetaceae	<i>Desmospora</i> sp 8437
119	ENAI ABH40216	Gemmatimonadetes	Gemmatimonadales	Gemmatimonadaceae	<i>Gemmatimonas aurantiaca</i>
120	ENAI AFH49936	Ignavibacteriae	Ignavibacteriales	Ignavibacteriaceae	<i>Ignavibacterium album</i> JCM16511
121	ENAI ADV63779	Planctomycetes	Planctomycetales	Planctomycetaceae	<i>Isosphaera pallida</i> ATCC43644
122	ENAI ADY59064	Planctomycetes	Planctomycetales	Planctomycetaceae	<i>Planctomyces brasiliensis</i> DSM5305
123	ENAI ADY61457	Planctomycetes	Planctomycetales	Planctomycetaceae	<i>Planctomyces brasiliensis</i> DSM5305
124	ENAI ADY61880	Planctomycetes	Planctomycetales	Planctomycetaceae	<i>Planctomyces brasiliensis</i> DSM5305
125	ENAI AFS38873	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Alteromonas macleodi</i> iATCC27126
126	ENAI AEA99704	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Alteromonas macleodii</i>
127	ENAI AFT76084	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Alteromonas macleodii</i>
128	ENAI AFT79860	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Alteromonas macleodii</i>
129	ENAI AEF05323	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Alteromonas</i> sp SN2
130	ENAI GAC17848	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola arctica</i> BSs20135
131	ENAI GAC21094	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola arctica</i> BSs20135
132	ENAI GAC22211	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola arctica</i> BSs20135
133	ENAI GAC26248	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola mesophila</i> KMM241
134	ENAI GAC26997	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola pallidula</i> DSM14239
135	ENAI GAC29575	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola pallidula</i> DSM14239
136	ENAI GAC30922	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola pallidula</i> DSM14239
137	ENAI GAC33715	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola polaris</i> LMG21857
138	ENAI GAC38437	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola psychrophila</i> 170
139	ENAI GAB56614	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Glacielcola punicea</i> DSM14233

140	ENAICCG96968	Proteobacteria	Alteromonadales	Alteromonadaceae	<i>Marinobacter hydrocarbonoclasticus</i> ATCC49840
141	ENAIDN76004	Proteobacteria	Alteromonadales	Ferrimonadaceae	<i>Ferrimonas balearica</i> DSM9799
142	ENAIGAA62951	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20311
143	ENAIGAA66449	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20429
144	ENAIGAA69043	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20429
145	ENAIGAA73690	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20480
146	ENAIGAA80269	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20495
147	ENAIGAA81571	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20495
148	ENAIGAA61442	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp BSi20652
149	ENAIDT68141	Proteobacteria	Alteromonadales	Pseudoalteromonadaceae	<i>Pseudoalteromonas</i> sp SM9913
150	ENAIBS09779	Proteobacteria	Alteromonadales	Shewanellaceae	<i>Shewanella baltica</i> OS185
151	ENAIBI73423	Proteobacteria	Alteromonadales	Shewanellaceae	<i>Shewanella frigidimarina</i> NCIMB 400
152	ENAIBZ75449	Proteobacteria	Alteromonadales	Shewanellaceae	<i>Shewanella halifaxensis</i> HAW-EB4
153	ENAIBV86147	Proteobacteria	Alteromonadales	Shewanellaceae	<i>Shewanella pealeana</i> ATCC 700345
154	ENAIBO22704	Proteobacteria	Alteromonadales	Shewanellaceae	<i>Shewanellalaloiha</i> PV-4
155	ENAICA85252	Proteobacteria	Alteromonadales	Shewanellaceae	<i>Shewanellawoodyi</i> ATCC 51908
156	ENAIAET91953	Proteobacteria	Burkholderiales	Burkholderiaceae	<i>Burkholderia</i> sp YI23
157	ENAIBF09460	Proteobacteria	Burkholderiales	Burkholderiaceae	<i>Cupriavidus metallidurans</i> CH3
158	ENAIAEI79776	Proteobacteria	Burkholderiales	Burkholderiaceae	<i>Cupriavidus necator</i> N-1
159	ENAIFU45370	Proteobacteria	Burkholderiales	Comamonadaceae	<i>Acidovorax</i> sp KKS102
160	ENAICY34046	Proteobacteria	Burkholderiales	Comamonadaceae	<i>Comamonas testosteroni</i>
161	ENAICY34739	Proteobacteria	Burkholderiales	Comamonadaceae	<i>Comamonas testosteroni</i>
162	ENAIBX34995	Proteobacteria	Burkholderiales	Comamonadaceae	<i>Delftia acidovorans</i> SPH-1
163	ENAIBM36524	Proteobacteria	Burkholderiales	Comamonadaceae	<i>Polaromonas naphthalenivorans</i> CJ2
164	ENAIAEK63472	Proteobacteria	Burkholderiales	Oxalobacteraceae	<i>Collimonas fungivorans</i> Ter331
165	ENAIAEK63890	Proteobacteria	Burkholderiales	Oxalobacteraceae	<i>Collimonas fungivorans</i> Ter331
166	ENAIEDX79900	Proteobacteria	Caulobacterales	Caulobacteraceae	<i>Brevundimonas</i> sp BAL3
167	ENAIEDX80389	Proteobacteria	Caulobacterales	Caulobacteraceae	<i>Brevundimonas</i> sp BAL3
168	ENAIEDX81672	Proteobacteria	Caulobacterales	Caulobacteraceae	<i>Brevundimonas</i> sp BAL3
169	ENAIAAK22442	Proteobacteria	Caulobacterales	Caulobacteraceae	<i>Caulobacter crescentus</i> CB15
170	ENAIAAK23544	Proteobacteria	Caulobacterales	Caulobacteraceae	<i>Caulobacter crescentus</i> CB15
171	ENAICG78853	Proteobacteria	Caulobacterales	Caulobacteraceae	<i>Phenylobacterium zucineum</i> HLK1
172	ENAIEGM78671	Proteobacteria	Chromatiales	Chromatiaceae	<i>Rheinheimera</i> sp A13
173	ENAIEED33300	Proteobacteria	Gammaproteobacteria	Gammaproteobacteria	<i>gammaproteobacterium</i> NOR5
174	ENAIEED35601	Proteobacteria	Gammaproteobacteria	Gammaproteobacteria	<i>gammaproteobacterium</i> NOR51
175	ENAIEKO36824	Proteobacteria	Gammaproteobacteria	Gammaproteobacteria	<i>SAR86clusterbacterium</i>
176	ENAIEKO37313	Proteobacteria	Gammaproteobacteria	Gammaproteobacteria	<i>SAR86clusterbacterium</i>
177	ENAIAEG01366	Proteobacteria	Methylococcales	Methylococcaceae	<i>Methylomonas methanica</i> MC09
178	ENAIAEI62293	Proteobacteria	Myxococcales	Myxococcaceae	<i>Myxococcus fulvus</i> HW-1
179	ENAIAAGC45053	Proteobacteria	Myxococcales	Myxococcaceae	<i>Myxococcus stipitatus</i> DSM14675
180	ENAIAAQ61942	Proteobacteria	Neisseriales	Neisseriaceae	<i>Chromobacterium violaceum</i> ATCC 12472
181	ENAIEDX89406	Proteobacteria	Oceanospirillales	Alcanivoracaceae	<i>Alcanivorax</i> sp DG881
182	ENAIEDX91210	Proteobacteria	Oceanospirillales	Alcanivoracaceae	<i>Alcanivorax</i> sp DG881
183	ENAIAABC28066	Proteobacteria	Oceanospirillales	Hahellaceae	<i>Hahella chejuensis</i> KCTC 2396
184	ENAIAABC31544	Proteobacteria	Oceanospirillales	Hahellaceae	<i>Hahella chejuensis</i> KCTC 2396
185	ENAIABE60068	Proteobacteria	Oceanospirillales	Halomonadaceae	<i>Chromohalobacter salexigens</i> DSM3043
186	ENAICBV42268	Proteobacteria	Oceanospirillales	Halomonadaceae	<i>Halomonas elongata</i> DSM2581
187	ENAIEEB78901	Proteobacteria	OMGgroup	OM60clade	<i>Gammaproteobacteria</i>
188	ENAIAAJ56861	Proteobacteria	Pseudomonadales	Moraxellaceae	<i>Acinetobacter baumannii</i> AB307-0294
189	ENAIEKU56649	Proteobacteria	Pseudomonadales	Moraxellaceae	<i>Acinetobacter baumannii</i> WC-323
190	ENAIAID89668	Proteobacteria	Pseudomonadales	Moraxellaceae	<i>Acinetobacter oleivorans</i> DR1
191	ENAIELW83481	Proteobacteria	Pseudomonadales	Moraxellaceae	<i>Acinetobacter</i> sp WC-743
192	ENAIAAO77444	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Azotobacte rvinelandii</i>
193	ENAIABR86870	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas aeruginosa</i> Pa7
194	ENAIABJ13183	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas aeruginosa</i> UCBPP-PA14
195	ENAIEKG33501	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas avellanae</i> BPIC631
196	ENAIAEA66958	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas brassicacearum</i> subsp <i>brassicacearum</i> NFM421
197	ENAIEIM16116	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas chlororaphis</i> O6
198	ENAIEJL08915	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas chlororaphis</i> subsp <i>aureofaciens</i> 30-84
199	ENAIAFJ58882	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> A506
200	ENAIAFJ59388	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> A506
201	ENAIAEV60917	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> F113
202	ENAIABA72539	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> Pf0-1
203	ENAIEJL02148	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> Q2-87
204	ENAIEJL02239	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> Q2-87
205	ENAIEIK70479	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> Q8r1-96
206	ENAIEJZ59901	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> R124
207	ENAIEIK62268	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> SS101
208	ENAIEIK63248	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> SS101
209	ENAIEFQ64408	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> WH6
210	ENAIAAGE25180	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas poae</i> RE 1-1-1
211	ENAIAAGE24246	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas poae</i> RE 1-1-14

212	ENAIAAY96259	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas protegens</i> Pf-5
213	ENAIEJL99162	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM16
214	ENAIEJM03283	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM17
215	ENAIEJM13129	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM18
216	ENAIEJM17528	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM18
217	ENAIEJM36045	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM30
218	ENAIEJM35897	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM33
219	ENAIEJM54628	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM41
220	ENAIEJM61630	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM48
221	ENAIEJM58181	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp GM49
222	ENAIAFY17601	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp UW4
223	ENAIAFY17929	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp UW4
224	ENAIEJM65063	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp.GM50
225	ENAIEJM70909	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp.GM55
226	ENAIEJM91030	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp.GM74
227	ENAIEJN29832	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp.GM78
228	ENAIEJN25826	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp.GM79
229	ENAIEJN25122	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas</i> sp.GM80
230	ENAIAFM31860	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas stutzer</i> iCCUG 29243
231	ENAIBP81306	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas stutzeri</i> A1501
232	ENAIGA85265	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas stutzeri</i> RCH2
233	ENAIEIK67779	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas synxantha</i> BG33R
234	ENAIEIK68182	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas synxantha</i> BG33R
235	ENAIELS44484	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas syringae</i> B64
236	ENAIAAO54543	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas syringae</i> DC3000
237	ENAIAAO57929	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas syringae</i> DC3000
238	ENAIEKG42923	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas syringae</i> pv <i>avellanae</i>
239	ENAIAAZ36305	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas syringae</i> pv <i>phaseolicola</i> 1448A
240	ENAIAAY39201	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas syringae</i> pv <i>syringae</i> B728a
241	gil229587578:9107 75-912316	Proteobacteria	Pseudomonadales	Pseudomonadaceae	<i>Pseudomonas fluorescens</i> SBW25
242	ENAIBCB95136	Proteobacteria	Rhizobiales	Beijerinckiaceae	<i>Beijerinckia indica</i> subsp <i>indica</i> ATCC 9039
243	ENAIBAM86284	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Agromonas oligotrophica</i> S58
244	ENAIBAC45799	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium japonicum</i> USDA 110
245	ENAIBAC47873	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium japonicum</i> USDA 110
246	ENAIBAL05805	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium japonicum</i> USDA 6
247	ENAIBAL12444	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium japonicum</i> USDA 6
248	ENAIBAQ32545	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium</i> sp BTa1
249	ENAICAL74216	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium</i> sp ORS278
250	ENAIBAL73521	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium</i> sp S23321
251	ENAIBAL78551	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium</i> sp S23321
252	ENAICAD75979	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Rhodopseudomonas palustris</i> CGA009
253	ENAICAE29954	Proteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Rhodopseudomonas palustris</i> CGA009
254	ENAIBCB26602	Proteobacteria	Rhizobiales	Methylobacteriaceae	<i>Methylobacterium radiotolerans</i> JCM2831
255	ENAIDV10306	Proteobacteria	Rhizobiales	Phyllobacteriaceae	<i>Mesorhizobium ciceri</i> biovar <i>biserrulae</i> WSM1271
256	ENAIBAB50851	Proteobacteria	Rhizobiales	Phyllobacteriaceae	<i>Mesorhizobium loti</i> MAFF303099
257	ENAIAEH85654	Proteobacteria	Rhizobiales	Phyllobacteriaceae	<i>Mesorhizobium opportunistum</i> WSM2075
258	ENAICM38012	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Agrobacterium vitis</i> S4
259	ENAICCF18951	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Rhizobium</i> sp
260	ENAICCF22040	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Rhizobium</i> sp
261	ENAICCE97714	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium fredii</i> HH103
262	ENAICP26932	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium fredii</i> NGR234
263	ENAIAFL49637	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium fredii</i> USDA 257
264	ENAIAFL54121	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium fredii</i> USDA 257
265	ENAIBR61806	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium medicae</i> WSM419
266	ENAIAAC44219	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium meliloti</i>
267	ENAIAEG05816	Proteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium meliloti</i> BL225C
268	ENAIEEB84921	Proteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Roseobacter</i> sp GAI101
269	ENAIAAV93580	Proteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Ruegeria pomeroyi</i> DSS-3
270	ENAIEGY01290	Proteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Azospirillum amazonense</i> Y2
271	ENAIAIC97695	Proteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Rhodospirillum centenum</i>
272	ENAIAIC99776	Proteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Rhodospirillum centenum</i>
273	ENAIAICJ01381	Proteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Rhodospirillum centenum</i>
274	ENAIBCB62284	Proteobacteria	Sphingomonadales	Erythrobacteraceae	<i>Erythrobacter litoralis</i> HTCC2594
275	ENAIBCB62554	Proteobacteria	Sphingomonadales	Erythrobacteraceae	<i>Erythrobacter litoralis</i> HTCC2594
276	ENAIBCB64568	Proteobacteria	Sphingomonadales	Erythrobacteraceae	<i>Erythrobacter litoralis</i> HTCC2594
277	ENAIEGI55870	Proteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Sphingomonas</i> sp S17
278	ENAIAAA74034	Proteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Zymomonas mobilis</i>
279	ENAIGAA04411	Proteobacteria	Vibrionales	Vibrionaceae	<i>Photobacterium leiognathi</i> subsp <i>mandapamensis</i>
280	ENAIBU71003	Proteobacteria	Vibrionales	Vibrionaceae	<i>Vibrio harveyi</i> ATCC BAA-1116
281	ENAIAEX21711	Proteobacteria	Vibrionales	Vibrionaceae	<i>Vibrio</i> sp EJY3
282	ENAIEKM14503	Proteobacteria	Vibrionales	Vibrionaceae	<i>Vibrio</i> sp HENC-01
283	ENAIEKM25196	Proteobacteria	Vibrionales	Vibrionaceae	<i>Vibrio</i> sp HENC-03
284	ENAIEKM27698	Proteobacteria	Vibrionales	Vibrionaceae	<i>Vibrio</i> sp HENC-03

285	ENAI AER57490	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Pseudoxanthomonas spadix</i> BD-a59
286	ENAI EED38117	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Stenotrophomonas</i> sp SKA14
287	ENAI EED38217	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Stenotrophomonas</i> sp SKA14
288	ENAI AGH79580	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas axonopodis</i>
289	ENAI AAM39002	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas axonopodis</i> pv citri str 306
290	ENAI AEO44275	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas axonopodis</i> pv citrumeloF1
291	ENAI AEO44276	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas axonopodis</i> pv citrumeloF1
292	ENAI AAM43263	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas campestris</i> pv campestris str ATCC 33913
293	gil188989396:4797 111-4798703	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas campestris</i> pv campestris str B100
294	ENAI AEL05146	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas campestris</i> pv raphani756C
295	ENAI AP008229	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas oryzae</i> pv oryzae MAFF311018
296	ENAI AAW77808	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas oryzae</i> pv oryzae KACC 10331
297	ENAI AAW77809	Proteobacteria	Xanthomonadales	Xanthomonadaceae	<i>Xanthomonas oryzae</i> pv oryzae KACC 10331
298	ENAI AFM12794	Spirochaetes	Leptospiraceae	Leptospiraceae	<i>Turneriella parva</i> DSM21527
299	ENAI EJO78772	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira ainterrogans</i> str LC82-25
300	ENAI EMY77397	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospir aweilii</i> str ICFT
301	ENAI EMJ98172	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira alstoni</i> serovar Sichuan str 79601
302	ENAI EKR99493	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira borgpetersenii</i> str 200901122
303	ENAI EMO55272	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira interrogans</i> str HAI1536
304	ENAI EJO69850	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira kirschneri</i> str RM52
305	ENAI EIE03159	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira licerasiae</i> str VAR010
306	ENAI EKJ85163	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira meyeri</i> serovar Hardjo str Went5
307	ENAI EKR72005	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira noguchii</i> str 2006001870
308	ENAI EKO33638	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira santarosai</i> str MOR084
309	ENAI EMJ99961	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira</i> sp B5-022
310	ENAI EMY62309	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira terpstae</i> ATCC 700639
311	ENAI EMY70440	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira vanthielii</i> ATCC700522
312	ENAI EKR66269	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira weilii</i> str 2006001853
313	ENAI EKP12482	Spirochaetes	Spirochaetales	Leptospiraceae	<i>Leptospira-borgpetersenii</i> -str-200801926
314	ENAI EDY80641	Verrucomicrobia	Verrucomicrobiales	Verrucomicrobiales	<i>Verrucomicrobiae bacterium</i> DG1235
315	ENAI EDY82445	Verrucomicrobia	Verrucomicrobiales	Verrucomicrobiales	<i>Verrucomicrobiae bacterium</i> DG1235

TABLE S2: Taxonomic summary showing the number of filtered reads at the phylum, class, order, family and genus levels in the samples S1-6 amplified by PHOD and ALPS primers.

	Number of reads											
	PHOD						ALPS					
	S1	S2	S3	S4	S5	S6	S1	S2	S3	S4	S5	S6
Acidobacteria	38	0	0	0	70	0	0	0	0	0	0	0
Acidobacteria	16	0	0	0	70	0	0	0	0	0	0	0
Acidobacteria	16	0	0	0	70	0	0	0	0	0	0	0
Acidobacteriaceae	16	0	0	0	70	0	0	0	0	0	0	0
<i>Acidobacterium</i>	15	0	0	0	66	0	0	0	0	0	0	0
<i>Granulicella</i>	1	0	0	0	4	0	0	0	0	0	0	0
Solibacteres	7	0	0	0	0	0	1	0	1	0	0	0
Solibacterales	7	0	0	0	0	0	1	0	1	0	0	0
Solibacteraceae	7	0	0	0	0	0	1	0	1	0	0	0
<i>Solibacter</i>	7	0	0	0	0	0	1	0	1	0	0	0
Unclassified Acidobacteria	15	0	0	0	0	0	0	0	0	0	0	0
Actinobacteria	325	611	392	343	443	285	26	101	18	71	21	59
Actinomycetales	307	598	388	331	440	285	26	93	18	39	15	59
Actinoplanaceae	198	434	209	109	211	133	25	62	10	36	15	27
<i>Actinoplanes</i>	106	198	3	0	24	11	0	0	0	0	1	3
<i>Kitasatospora</i>	1	0	3	1	0	0	0	0	0	0	0	0
<i>Micromonospora</i>	1	22	2	6	36	13	0	0	6	0	0	0
<i>Microstreptospora</i>	26	12	61	0	44	16	0	3	0	5	0	9
<i>Streptomyces</i>	64	201	127	102	94	93	25	59	4	31	14	15
<i>Streptosporangium</i>	0	1	13	0	13	0	0	0	0	0	0	0
Actinosynnemataceae	17	31	29	157	0	28	1	2	1	0	0	28
<i>Actinomyces</i>	0	2	0	0	0	22	0	0	0	0	0	0
<i>Amycolatopsis</i>	4	19	5	155	0	4	0	0	1	0	0	1
<i>Kutzneria</i>	0	0	0	0	0	0	0	0	0	0	0	27
<i>Saccharothrix</i>	13	10	20	2	0	2	0	2	0	0	0	0
<i>Thermobispora</i>	0	0	4	0	0	0	1	0	0	0	0	0
Beutenbergiaceae	6	5	0	0	28	48	0	0	0	0	0	0
<i>Beutenbergia</i>	6	5	0	0	28	48	0	0	0	0	0	0
Cellulomonadaceae	0	0	0	0	0	0	0	0	1	0	0	0
<i>Cellulomonas</i>	0	0	0	0	0	0	0	0	1	0	0	0
Corynebacteriaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Corynebacterium</i>	0	0	0	0	0	0	0	0	0	0	0	0
Frankiaceae	14	0	62	2	34	0	0	0	0	0	0	1
<i>Frankia</i>	14	0	62	2	34	0	0	0	0	0	0	1
Geodermatophilaceae	0	0	0	0	0	0	0	0	1	1	0	1
<i>Blastococcus</i>	0	0	0	0	0	0	0	0	0	1	0	0
<i>Geodermatophilus</i>	0	0	0	0	0	0	0	0	1	0	0	0
<i>Modestibacter</i>	0	0	0	0	0	0	0	0	0	0	0	1
Glycomycetaceae	0	0	0	0	0	1	0	8	0	0	0	0
<i>Stackebrandtia</i>	0	0	0	0	0	1	0	8	0	0	0	0
Gordoniaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gordana</i>	0	0	0	0	0	0	0	0	0	0	0	0
Kineosporiaceae	7	13	5	3	32	11	0	0	0	0	0	0
<i>Kineococcus</i>	7	13	5	3	32	11	0	0	0	0	0	0
Micrococcaceae	6	15	40	25	2	2	0	0	0	0	0	0
<i>Arthrobacter</i>	1	0	21	0	1	0	0	0	0	0	0	0
<i>Micrococcus</i>	5	15	19	25	1	2	0	0	0	0	0	0
Mycobacteriaceae	0	0	0	0	3	1	0	0	0	0	0	2
<i>Mycobacterium</i>	0	0	0	0	3	1	0	0	0	0	0	2
Nocardiaceae	0	5	0	0	0	0	0	0	0	0	0	0
<i>Micropolyspora</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Rhodococcus</i>	0	5	0	0	0	0	0	0	0	0	0	0
Nocardiodiaceae	59	87	34	35	127	61	0	14	5	0	0	0
<i>Kribella</i>	59	87	28	34	126	61	0	14	5	0	0	0
<i>Nocardia</i>	0	0	6	1	1	0	0	0	0	0	0	0
Propionibacteriaceae	0	0	0	0	0	0	0	0	0	2	0	0
<i>Microlunatus</i>	0	0	0	0	0	0	0	0	0	2	0	0
Thermomonosporaceae	0	8	9	0	2	0	0	7	0	0	0	0
<i>Thermomonospora</i>	0	8	9	0	2	0	0	7	0	0	0	0
Tsukamurellaceae	0	0	0	0	1	0	0	0	0	0	0	0
<i>Tsukamurella</i>	0	0	0	0	1	0	0	0	0	0	0	0
Rubrobacterales	18	13	4	12	3	0	0	8	0	32	0	0

Rubrobacteraceae	18	13	4	12	3	0	0	8	0	32	0	0
<i>Rubrobacter</i>	18	13	4	12	3	0	0	8	0	32	0	0
Solirubrobacteriales	0	0	0	0	0	0	0	0	0	0	6	0
Conexibacteraceae	0	0	0	0	0	0	0	0	0	0	6	0
<i>Conexibacter</i>	0	0	0	0	0	0	0	0	0	0	6	0
Bacteroidetes	0	0	0	1	4	0	2	3	0	0	0	0
Sphingobacteriia	0	0	0	1	4	0	2	3	0	0	0	0
Chitinophagaceae	0	0	0	1	4	0	2	3	0	0	0	0
<i>Niastella</i>	0	0	0	1	4	0	2	3	0	0	0	0
Chloroflexi	4	0	6	0	0	0	0	2	9	0	0	0
Chloroflexi	2	0	6	0	0	0	0	1	0	0	0	0
Chloroflexaceae	2	0	0	0	0	0	0	1	0	0	0	0
Roseiflexaceae	2	0	0	0	0	0	0	1	0	0	0	0
<i>Roseiflexus</i>	2	0	0	0	0	0	0	1	0	0	0	0
Herpetosiphonales	0	0	6	0	0	0	0	0	0	0	0	0
Herpetosiphonaceae	0	0	6	0	0	0	0	0	0	0	0	0
<i>Herpetosiphon</i>	0	0	6	0	0	0	0	0	0	0	0	0
Thermomicrobia	2	0	0	0	0	0	0	1	9	0	0	0
Sphaerobacteriales	2	0	0	0	0	0	0	1	0	0	0	0
Sphaerobacteraceae	2	0	0	0	0	0	0	1	0	0	0	0
<i>Sphaerobacter</i>	2	0	0	0	0	0	0	1	0	0	0	0
Cyanobacteria	39	116	66	88	673	72	0	0	0	0	0	5
Cyanophyceae	0	6	47	6	43	0	0	0	0	0	0	0
Chroococcales	0	0	1	0	0	0	0	0	0	0	0	0
Xenococcaceae	0	0	1	0	0	0	0	0	0	0	0	0
<i>Chroococcidiopsis</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pleurocapsa</i>	0	0	1	0	0	0	0	0	0	0	0	0
Nostocales	0	6	46	6	43	0	0	0	0	0	0	0
Nostocaceae	0	6	46	6	43	0	0	0	0	0	0	0
<i>Amorphonostoc</i>	0	6	46	5	0	0	0	0	0	0	0	0
<i>Anabaena</i>	0	0	0	1	43	0	0	0	0	0	0	0
Gloeobacteria	39	107	19	80	605	67	0	0	0	0	0	5
Gloeobacteriales	39	107	19	80	605	67	0	0	0	0	0	5
Gloeobacter	39	107	19	80	605	67	0	0	0	0	0	5
<i>Gloeobacter</i>	39	107	19	80	605	67	0	0	0	0	0	5
Oscillatoriophyceae	0	3	0	2	25	5	0	0	0	0	0	0
Chroococcales	0	3	0	2	25	5	0	0	0	0	0	0
Chroococcales	0	3	0	2	25	5	0	0	0	0	0	0
<i>Chroococcus</i>	0	2	0	2	25	5	0	0	0	0	0	0
<i>Cyanothece</i>	0	1	0	0	0	0	0	0	0	0	0	0
Oscillatoriales	0	0	11	0	0	0	0	0	0	0	0	0
Oscillatoriales	0	0	11	0	0	0	0	0	0	0	0	0
<i>Microcoleus</i>	0	0	11	0	0	0	0	0	0	0	0	0
Deinococcus-Thermus	16	63	296	95	47	64	0	0	0	0	0	0
Hadobacteria	16	63	296	95	47	64	0	0	0	0	0	0
Deinococcales	16	63	296	95	47	64	0	0	0	0	0	0
Deinococcaceae	16	63	296	95	47	64	0	0	0	0	0	0
<i>Deinobacter</i>	16	63	296	95	47	64	0	0	0	0	0	0
Trueperaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Truepera</i>	0	0	0	0	0	0	0	0	0	0	0	0
Firmicutes	67	561	30	145	263	58	0	0	0	0	0	0
Bacilli	67	561	30	145	263	58	0	0	17	0	0	0
Bacillales	67	561	30	145	263	58	0	0	0	0	0	0
Bacillaceae	67	561	30	145	263	58	0	0	0	0	0	0
<i>Bacillus</i>	67	549	25	145	263	58	0	0	0	0	0	0
<i>Geobacillus</i>	0	12	5	0	0	0	0	0	0	0	0	0
Clostridia	0	0	0	0	0	0	0	0	0	0	0	0
Clostridiales	0	0	0	0	0	0	0	0	0	0	0	0
Peptococcaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Desulfitobacterium</i>	0	0	0	0	0	0	0	0	0	0	0	0
Gemmatimonadetes	33	33	6	4	37	67	12	0	0	11	5	21
Gemmatimonadetes	29	33	6	4	34	67	0	0	0	0	0	3
Gemmatimonadales	29	33	6	4	34	67	0	0	0	0	0	3
Gemmatimonadaceae	29	33	6	4	34	67	0	0	0	0	0	3
<i>Gemmatimonas</i>	29	33	6	4	34	67	0	0	0	0	0	3
Unclassified Gemmatimonadetes	4	0	0	0	3	0	12	0	0	11	5	18
Nitrospirae	0	2	0	0	0	0	0	0	0	0	0	0
Nitrospira	0	2	0	0	0	0	0	0	0	0	0	0
Nitrospirales	0	2	0	0	0	0	0	0	0	0	0	0
Nitrospiraceae	0	2	0	0	0	0	0	0	0	0	0	0

<i>Nitrospira</i>	0	2	0	0	0	0	0	0	0	0	0	0
Planctomycetes	34	87	139	18	582	190	0	2	139	5	0	0
Planctomycetacia	34	87	139	18	582	190	0	0	0	0	0	0
Planctomycetales	34	87	139	18	582	190	0	0	0	0	0	0
Planctomycetaceae	34	87	139	18	582	190	0	0	0	0	0	0
<i>Isosphaera</i>	6	1	3	0	104	9	0	0	0	0	0	0
<i>Pirella</i>	22	41	19	0	25	13	0	0	0	0	0	0
<i>Planctomyces</i>	0	6	0	0	0	0	0	0	0	0	0	0
<i>Rhodopirellula</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Singulisphaera</i>	6	39	117	18	453	168	0	0	0	5	0	0
Proteobacteria	642	412	1097	239	1164	269	1878	2477	1592	1537	3405	3350
Alphaproteobacteria	189	343	772	226	960	236	1707	1760	1423	900	3164	2690
Caulobacter	11	5	381	2	52	0	0	0	0	0	0	0
Caulobacteraceae	11	5	381	2	52	0	0	0	0	0	0	0
<i>Asticcacaulis</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Brevundimonas</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Caulobacter</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Phenylobacterium</i>	11	5	381	2	52	0	0	0	0	0	0	0
Rhizobiales	178	338	391	224	891	232	1707	1760	1423	892	3162	2685
Beijerinckiaceae	0	1	0	0	0	5	0	0	0	2	0	1
<i>Beijerinckia</i>	0	1	0	0	0	5	0	0	0	2	0	1
Bradyrhizobiaceae	28	57	220	44	105	42	666	594	219	115	118	247
<i>Bradyrhizobium</i>	28	31	203	44	105	27	666	594	219	115	118	247
<i>Oligotropha</i>	0	0	15	0	0	0	0	0	0	0	0	0
<i>Rhodopseudomonas</i>	0	26	2	0	0	3	0	0	0	0	0	0
Methylobacteriaceae	39	11	52	180	466	59	1020	1056	1137	670	3000	2398
<i>Methylobacterium</i>	39	11	52	180	466	59	1020	1056	1137	670	3000	2398
Methylocystaceae	0	4	1	0	0	23	0	0	0	0	0	0
<i>Methylocystis</i>	0	4	1	0	0	23	0	0	0	0	0	0
Phyllobacteriaceae	0	25	15	0	209	55	0	42	10	41	41	33
<i>Mesorhizobium</i>	0	25	15	0	209	55	0	42	10	41	41	33
Rhizobiaceae	5	42	95	0	87	34	21	68	57	64	2	3
<i>Agrobacterium</i>	0	19	0	0	23	14	0	13	0	0	0	0
<i>Pelagibacterium</i>	0	0	36	0	3	0	0	0	0	0	0	0
<i>Rhizobium</i>	5	16	37	0	55	13	20	40	57	0	2	0
<i>Sinorhizobium</i>	0	7	22	0	6	7	1	15	0	64	0	3
Xanthobacteraceae	0	0	5	0	0	3	0	0	0	0	0	0
<i>Azorhizobium</i>	0	0	1	0	0	2	0	0	0	0	0	0
<i>Starkeya</i>	0	0	4	0	0	1	0	0	0	0	0	0
Rhodobacterales	0	0	0	0	0	0	0	0	0	6	2	1
Rhodobacteraceae	0	0	0	0	0	0	0	0	0	6	2	1
<i>Ketogulonicigenium</i>	0	0	0	0	0	0	0	0	0	6	2	1
Rhodospirillales	0	0	0	0	0	0	0	0	0	0	0	3
Gluconobacteraceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Acidiphilium</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Gluconobacter</i>	0	0	0	0	0	0	0	0	0	0	0	0
Rhodospirillaceae	0	0	0	0	0	0	0	0	0	0	0	3
<i>Azospirillum</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Rhodospirillum</i>	2	2	2	2	2	2	2	2	2	2	2	2
Sphingomonadales	0	0	0	0	17	4	0	0	0	2	0	1
Sphingomonadaceae	0	0	0	0	17	4	0	0	0	2	0	1
<i>Sphingobium</i>	0	0	0	0	17	0	0	0	0	0	0	0
<i>Sphingomonas</i>	0	0	0	0	0	4	0	0	0	1	0	1
<i>Sphingopyxis</i>	0	0	0	0	0	0	0	0	0	1	0	0
Betaproteobacteria	36	6	26	1	132	18	97	192	72	98	173	206
Burkholderiales	36	6	26	1	132	18	97	192	72	98	173	206
Alcaligenaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Achromobacter</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Bordetella</i>	0	0	0	0	0	0	0	0	0	0	0	0
Burkholderiaceae	0	0	7	0	24	1	19	183	68	71	141	177
<i>Burkholderia</i>	0	0	0	0	2	0	2	18	1	0	8	2
<i>Cupravidus</i>	0	0	2	0	0	1	17	99	41	34	102	117
<i>Ralstonia</i>	0	0	5	0	22	0	0	66	26	37	31	58
Comamonadaceae	36	0	19	1	106	1	1	9	3	18	32	28
<i>Acidivorax</i>	1	0	8	1	0	0	0	0	0	0	0	0
<i>Albidoferax</i>	0	0	0	0	10	1	0	0	0	0	0	0
<i>Alicyclophilus</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Curvibacter</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Delftia</i>	0	0	0	0	0	0	0	6	3	18	32	28
<i>Ramlibacter</i>	0	0	0	0	62	0	1	0	0	0	0	0

<i>Variovorax</i>	35	0	11	0	34	0	0	0	0	0	0	0
<i>Verminephrobacter</i>	0	0	0	0	0	0	0	3	0	0	0	0
Oxalobacteraceae	0	5	0	0	1	0	76	0	1	9	0	1
<i>Collimonas</i>	0	0	0	0	1	0	75	0	0	8	0	1
<i>Herbaspirillum</i>	0	5	0	0	0	0	1	0	1	1	0	0
Unclassified	0	1	0	0	1	16	1	0	0	0	0	0
<i>Leptothrix</i>	0	0	0	0	0	0	0	0	0	0	0	0
<i>Methylibium</i>	0	1	0	0	1	16	1	0	0	0	0	0
Neisseriales	0	0	0	0	0	0	0	0	0	0	0	0
Chromobacteriaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Pseudogulbenkiania</i>	0	0	0	0	0	0	0	0	0	0	0	0
Rhodocyclales	0	0	0	0	0	0	0	5	0	0	0	0
Rhodocyclaceae	0	0	0	0	0	0	0	5	0	0	0	0
<i>Azoarcus</i>	0	0	0	0	0	0	0	5	0	0	0	0
Gammaproteobacteria	413	63	299	12	71	15	73	523	97	538	68	454
Chromatiaceae	0	0	0	0	0	0	0	0	0	0	0	0
Chromatiaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Marichromatium</i>	0	0	0	0	0	0	0	0	0	0	0	0
Oceanospirillales	0	2	0	0	0	0	0	8	0	0	0	0
Halomonadaceae	0	2	0	0	0	0	0	8	0	0	0	0
<i>Chromohalobacter</i>	0	0	0	0	0	0	0	8	0	0	0	0
<i>Deleya</i>	0	2	0	0	0	0	0	0	0	0	0	0
Pseudomonadales	300	21	70	0	47	2	72	439	80	483	44	317
Methylococcaceae	0	0	0	0	0	0	0	3	3	2	0	0
<i>Methylomonas</i>	0	0	0	0	0	0	0	3	3	2	0	0
Pseudomonadaceae	300	21	70	0	47	2	72	436	77	481	44	317
<i>Azotobacter</i>	0	0	0	0	0	0	0	82	1	1	4	13
<i>Pseudomonas</i>	300	21	70	0	47	2	72	354	76	480	40	304
Xanthomonadales	113	40	229	12	24	13	1	76	17	55	24	137
Xanthomonadaceae	113	40	229	12	24	13	1	76	17	55	24	137
<i>Lysobacter</i>	0	0	0	0	0	0	0	2	0	3	6	3
<i>Pseudoxanthomonas</i>	0	0	0	0	0	0	0	2	0	0	0	0
<i>Rhodanobacter</i>	0	0	0	0	0	0	0	2	0	0	0	0
<i>Stenotrophomonas</i>	0	0	0	0	0	0	1	0	0	0	0	0
<i>Xanthomonas</i>	113	40	229	12	24	13	0	72	17	52	18	134
Epsilonproteobacteria	4	0	0	0	1	0	1	2	0	1	0	0
Desulfobacterales	4	0	0	0	1	0	1	2	0	1	0	0
Geobacteraceae	4	0	0	0	1	0	0	0	0	0	0	0
<i>Geobacter</i>	4	0	0	0	1	0	0	0	0	0	0	0
Myxococcaceae	0	0	0	0	0	0	0	2	0	1	0	0
<i>Anaeromyxobacter</i>	0	0	0	0	0	0	0	2	0	1	0	0
<i>Myxococcus</i>	0	0	0	0	0	0	0	2	0	1	0	0
Sorangiaceae	0	0	9	0	0	0	1	0	0	0	0	0
<i>Sporiangium</i>	0	0	9	0	0	0	1	0	0	0	0	0
Spirochaetae	0	0	0	0	0	0	0	0	0	0	0	0
Spirochaetes	0	0	0	0	0	0	0	0	0	0	0	0
Spirochaetales	0	0	0	0	0	0	0	0	0	0	0	0
Spirochaetaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Spirochaeta</i>	0	0	0	0	0	0	0	0	0	0	0	0
Verrucomicrobia	0	0	0	0	0	0	0	0	0	0	0	0
Verrucomicrobia	0	0	0	0	0	0	0	0	0	0	0	0
Opitutae	0	0	0	0	0	0	0	0	0	0	0	0
Opitutaceae	0	0	0	0	0	0	0	0	0	0	0	0
<i>Opitutus</i>	0	0	0	0	0	0	0	0	0	0	0	0
Unclassified	0	0	0	0	0	0	0	0	0	0	0	0
Unclassified Bacteria	1	22	60	6	129	21	315	2604	145	554	228	967