Opitutales Clostridiales Methylococcales Clostridiales	Opitutaceae Gracilibacteraceae Methylococcaceae Clostridiaceae_1	Opitutus Lutispora Methylobacter Clostridium_sensu_stricto_12	Opitutus_X Lutispora_X Methylobacter_X Clostridium_sensu_stricto_12_X	>HE861315.1.937 >AM991201.1.1439 >HQ534083.1.871 >HQ622753.1.1475	99.3 X7 98.77 X53 100 X49 100 X78	grazed august_2016	august_2015 august_2016 sv1 sv2 sv1 sv2	exclosed june_2016 august_2015 sv1 sv2 sv1 sv2
Solirubrobacterales C_Azambacteria_X Rhizobiales Clostridiales Micrococcales KD4-96_X Chthoniobacterales 43F-1404R	Gsoil–1167 C_Azambacteria_XX Bradyrhizobiaceae Eubacteriaceae Intrasporangiaceae KD4–96_XX DA101_soil_group 43F–1404R_X	Gsoil-1167_X C_Azambacteria_XXX Rhodoblastus Acetobacterium Oryzihumus KD4-96_XXX DA101_soil_group_X 43F-1404R_XX	Gsoil-1167_XX  C_Azambacteria_XXXX  Rhodoblastus_X  Acetobacterium_X  Oryzihumus_X  KD4-96_XXXX  DA101_soil_group_XX  43F-1404R_XXX	>KJ173737.1.715 >EF072692.1.875 >HG324431.1.823 >FJ592917.1.1367 >EF034868.1.824 >KC663943.1.799 >EU861845.1.1526 >AB657299.1.898	94.83 X154 100 X103 100 X20 99.52 X32 99.5 X125 98.36 X62 100 X232			
Rhizobiales Ignavibacteriales Solirubrobacterales Clostridiales Frankiales Rhizobiales Methylococcales Acidimicrobiales	Rhodobiaceae BSV26 Solirubrobacteraceae Clostridiaceae_1 Nakamurellaceae MNG7 Crenotrichaceae Acidimicrobiaceae	Rhodobiaceae_X BSV26_X Solirubrobacter  Clostridium_sensu_stricto_13 Nakamurella MNG7_X Crenothrix CL500-29_marine_group	Rhodobiaceae_XX BSV26_XX Solirubrobacter_X Clostridium_spC5S18 Nakamurella_X MNG7_XX Crenothrix_X CL500-29_marine_group_X	>AB806462.1.1413 >GQ421108.1.1056 >FN567276.1.854 >AB539901.1.1369 >FJ661758.1.817 >AB630410.1.1412 >AB753932.1.1453 >EF019527.1.1372	99.76 X156 100 X147 100 X2 99.75 X1 100 X3 97.42 X6			
Anaerolineales KD4-96_X Rhizobiales KD4-96_X Rhizobiales Corynebacteriales Gaiellales Nitrospirales	Anaerolineaceae KD4-96_XX Rhizobiales_Incertae_Sedis KD4-96_XX Bradyrhizobiaceae Mycobacteriaceae Gaiellaceae Nitrospiraceae	Anaerolineaceae_X KD4-96_XXX Bauldia KD4-96_XXX Bradyrhizobium Mycobacterium Gaiella Nitrospira	Anaerolineaceae_XX KD4-96_XXXX Bauldia_X KD4-96_XXXX Bradyrhizobium_X Mycobacterium_X Gaiella_X Nitrospira_X	>EF589981.1.1374 >EF019369.1.1353 >FJ568560.1.651 >GQ420996.1.1029 >AB035490.1.1413 >EF187357.1.1401 >JQ253435.1.801 >GQ397034.1.1506	99.75 X10 100 X8 100 X11			
Rhizobiales Rhizobiales Nitrosomonadales Blastocatellales Cytophagales Acidimicrobiales Acidimicrobiales	Xanthobacteraceae Hyphomicrobiaceae Nitrosomonadaceae Blastocatellaceae_(Subgroup_4) Cytophagaceae Acidimicrobiaceae Acidimicrobiales_X	Pseudolabrys Hyphomicrobium Nitrosomonadaceae_X RB41 Chryseolinea CL500-29_marine_group Acidimicrobiales_XX	Pseudolabrys_X Hyphomicrobium_X Nitrosomonadaceae_XX RB41_X Chryseolinea_X CL500-29_marine_group_X Acidimicrobiales_XXX	>GQ397034.1.1300 >FJ592559.1.1346 >GQ263780.1.1426 >AB656545.1.851 >HQ598379.1.1515 >HQ911211.1.870 >EF019440.1.1370 >EU514548.1.844	99.75 X15 100 X14 100 X24 99.76 X19 99.76 X18			
ARKICE-90_X Anaerolineales Chthoniobacterales Desulfobacterales TRA3-20 Bacteroidetes_vadinHA17_X Methylococcales	ARKICE-90_XX Anaerolineaceae DA101_soil_group Desulfobulbaceae TRA3-20_X Bacteroidetes_vadinHA17_XX Methylococcaceae	ARKICE-90_XXX  Anaerolineaceae_X  DA101_soil_group_X  [Desulfobacterium]_catecholicum_group  TRA3-20_XX  Bacteroidetes_vadinHA17_XXX  Methylobacter	ARKICE-90_XXXX Anaerolineaceae_XX DA101_soil_group_XX [Desulfobacterium]_catecholicum_group_X TRA3-20_XXX Bacteroidetes_vadinHA17_XXXX Methylobacter_X	>AM935045.1.1376 >FQ658747.1.1316 >EF018302.1.1408 >KF424855.1.853 >AB658352.1.889 >JX981697.1.1043 >EU124849.1.925	99.77 X50 99.3 X23 100 X38 99.53 X21 100 X28			
Myxococcales Anaerolineales Acidimicrobiales Micrococcales Clostridiales Micrococcales Micrococcales Frankiales	BIrii41 Anaerolineaceae Acidimicrobiales_X Intrasporangiaceae Gracilibacteraceae Intrasporangiaceae Intrasporangiaceae Nakamurellaceae	BIrii41_X Anaerolineaceae_X Acidimicrobiales_XX Oryzihumus Lutispora Intrasporangiaceae_X Oryzihumus Nakamurella	BIrii41_XX Anaerolineaceae_XX Acidimicrobiales_XXX Oryzihumus_X Lutispora_X Intrasporangiaceae_XX Oryzihumus_X Nakamurella_X	>JN038942.1.1513 >KC607214.1.764 >KJ849553.1.600 >AM940531.1.819 >HM481373.1.1391 >CU919398.1.1343 >EF019959.1.1369 >AM697044.1.1472	98.01 X76 99.75 X70 99.75 X42 98.77 X27			
Kineosporiales Rhizobiales Solibacterales Chthoniobacterales Methylococcales Bacteroidetes_vadinHA17_X Rhizobiales	Kineosporiaceae JG34-KF-361 Solibacteraceae_(Subgroup_3) DA101_soil_group Methylococcaceae Bacteroidetes_vadinHA17_XX Rhizobiales_Incertae_Sedis	Kineosporia JG34–KF–361_X C_Solibacter DA101_soil_group_X Methylobacter Bacteroidetes_vadinHA17_XXX Rhizomicrobium	Kineosporia_rhamnosa_JCM_9954 JG34-KF-361_XX C_Solibacter_X DA101_soil_group_XX Methylobacter_X Bacteroidetes_vadinHA17_XXXX Rhizomicrobium_X	>AM097044.1.1472 >BBID01001182.73.1567 >JQ384506.1.744 >EF664878.1.795 >HE861232.1.925 >EU124850.1.925 >EU644258.1.1482 >AF498717.1.1397	100 X96 100 X36 100 X30 99.77 X93 99.53 X44			
SB-5_X Rhizobiales Solibacterales Rhizobiales Acidimicrobiales Acidimicrobiales Chthoniobacterales	SB-5_XX Hyphomicrobiaceae Solibacteraceae_(Subgroup_3) Xanthobacteraceae Acidimicrobiaceae Acidimicrobiales_X DA101_soil_group	SB-5_XXX Rhodoplanes C_Solibacter Pseudolabrys CL500-29_marine_group Acidimicrobiales_XX DA101_soil_group_X	SB-5_XXXX Rhodoplanes_X C_Solibacter_X Pseudolabrys_X CL500-29_marine_group_X Acidimicrobiales_XXX DA101_soil_group_XX	>AB630505.1.1452 >EF516342.1.1408 >KF973879.1.667 >EF665573.1.807 >AB127668.1.529 >EU644173.1.1418 >HE861214.1.932	100 X22 100 X75 100 X26 100 X39 100 X40 100 X33 99.3 X43			
Methanobacteriales Micrococcales Micrococcales Holophagales Anaerolineales Clostridiales Gemmatimonadales Myxococcales	Methanobacteriaceae Intrasporangiaceae Intrasporangiaceae Holophagaceae Anaerolineaceae Family_XIII Gemmatimonadaceae BIrii41	Methanobrevibacter Oryzihumus Oryzihumus Geothrix Anaerolinea Anaerovorax Gemmatimonadaceae_X BIrii41_X	Methanobrevibacter_X Oryzihumus_X Oryzihumus_X Geothrix_X Anaerolinea_X Anaerovorax_X Gemmatimonadaceae_XX BIrii41_XX	>JN098606.1.1027 >JX098605.1.1344 >EU978745.1.1103 >FR732316.1.868 >GQ182779.1.1356 >EF034739.1.837 >AB657184.1.856 >AM991157.1.897	99.3 X72			
C_Azambacteria_X Planctomycetales Opitutales Blastocatellales Saccharibacteria_XX Chloroplast_X Nitrosomonadales	C_Azambacteria_XX Planctomycetaceae Opitutaceae Blastocatellaceae_(Subgroup_4) Saccharibacteria_XXX Chloroplast_XX Nitrosomonadaceae	C_Azambacteria_XXX Planctomycetaceae_X Opitutus RB41 Saccharibacteria_XXXX Chloroplast_XXX Nitrosomonadaceae_X	C_Azambacteria_XXXX Planctomycetaceae_XX Opitutus_X RB41_X Saccharibacteria_XXXXX Chloroplast_XXXX Nitrosomonadaceae_XX	>KC922849.1.716 >KC922849.1.716 >AB657271.1.872 >AM158357.1.935 >FJ849538.1.1484 >FJ823169.1.982 >AB657488.1.850 >DQ884928.1.813	99.26 X144 100 X57 99.77 X202 100 X138 98.01 X64 100 X90			
Rhizobiales SC-I-84 SC-I-84 Sphingobacteriales Ignavibacteriales Nitrosomonadales Climacium_dendroides	Rhizobiales_Incertae_Sedis SC-I-84_X SC-I-84_X Saprospiraceae BSV26 Nitrosomonadaceae Climacium_dendroides_X	Bauldia SC-I-84_XX SC-I-84_XX Saprospiraceae_X BSV26_X Nitrosomonadaceae_X Climacium_dendroides_XX	Bauldia_X SC-I-84_XXX SC-I-84_XXX Saprospiraceae_XX BSV26_XX Nitrosomonadaceae_XX Climacium_dendroides_XXX	>FJ592570.1.1136 >AB659315.1.876 >GQ287539.1.1059 >EU297642.1.825 >KC922989.1.740 >EF019847.1.1382 >AF393588.1.1468	100 X48 100 X61 96.25 X108 100 X94 99.29 X51 98.83 X68			
Gaiellales C_Nomurabacteria_X Acidimicrobiales Sphingomonadales Acidimicrobiales Solibacterales KD4-96_X	Gaiellales_X C_Nomurabacteria_XX Acidimicrobiales_X JG34-KF-161 Acidimicrobiales_X Solibacteraceae_(Subgroup_3) KD4-96_XX	Gaiellales_XX  C_Nomurabacteria_XXX  Acidimicrobiales_XX  Sphingomonas_sp52NP12  Acidimicrobiales_XX  Bryobacter  KD4-96_XXX	Gaiellales_XXX  C_Nomurabacteria_XXXX  Acidimicrobiales_XXX  Sphingomonas_sp52NP12_X  Acidimicrobiales_XXX  Bryobacter_X  KD4_96_XXXX	>FJ568791.1.670 >KC192541.1.799 >EF018450.1.1368 >AB242798.1.763 >FN548025.1.637 >FJ166450.1.762 >FQ659713.1.1311	98.03 X55 100 X110 100 X189 100 X58 100 X89 100 X84			
KD4-96_X Anaerolineales KD4-96_X Propionibacteriales Anaerolineales Desulfobacterales Acidimicrobiales unidentified	KD4-96_XX Anaerolineaceae KD4-96_XX Propionibacteriaceae Anaerolineaceae Desulfobulbaceae Acidimicrobiaceae unidentified	KD4-96_XXX Anaerolineaceae_X KD4-96_XXX Propionibacteriaceae_X Anaerolineaceae_X Desulfobulbaceae_X Acidimicrobiaceae_X unidentified	KD4-96_XXXX Anaerolineaceae_XX KD4-96_XXXX Propionibacteriaceae_XX Anaerolineaceae_XX Desulfobulbaceae_XX Acidimicrobiaceae_XX unidentified	>JX859931.1.1101 >EF589981.1.1374 >EU644259.1.1454 >CU917889.1.1341 >FQ658747.1.1316 >EF034474.1.839 >EU715952.1.834 >JN098606.1.1027	99.75 X65 97.79 X155 89.55 X101 98.36 X47			
Micrococcales Solirubrobacterales Acidimicrobiales Desulfobacterales Solirubrobacterales Chthoniobacterales Bacteroidetes_vadinHA17_X	Intrasporangiaceae Solirubrobacteraceae Acidimicrobiaceae Desulfobacteraceae Elev-16S-1332 DA101_soil_group Bacteroidetes_vadinHA17_XX	Oryzihumus Solirubrobacter CL500-29_marine_group Desulfatirhabdium Elev-16S-1332_X DA101_soil_group_X Bacteroidetes_vadinHA17_XXX	Oryzihumus_X Solirubrobacter_X CL500-29_marine_group_X Desulfatirhabdium_X Elev-16S-1332_XX DA101_soil_group_XX Bacteroidetes_vadinHA17_XXXX	>HE861242.1.925 >AM940921.1.992 >AB544029.1.552 >GU556333.1.591 >HQ119382.1.1516 >JQ368120.1.810 >AB630798.1.1448	99.75 X102 100 X59 100 X169 99.77 X130 100 X323 100 X124 100 X131			
Methylococcales Propionibacteriales Caldisericales KD4–96_X Bacteroidetes_vadinHA17_X Subgroup_22_X Nitrosomonadales Rhizobiales	Crenotrichaceae Nocardioidaceae Caldisericaceae KD4-96_XX Bacteroidetes_vadinHA17_XX Subgroup_22_XX Nitrosomonadaceae JG34-KF-361	Crenothrix Nocardioides Caldisericum KD4-96_XXX Bacteroidetes_vadinHA17_XXX Subgroup_22_XXX Nitrosomonadaceae_X	Crenothrix_X Nocardioides_X Caldisericum_X KD4-96_XXXX Bacteroidetes_vadinHA17_XXXX Subgroup_22_XXXX Nitrosomonadaceae_XX IG34_KE_361_XX	>KC606445.1.790 >HM340619.1.1346 >AB999433.1.889 >KF712627.1.1476 >AB660781.1.885 >AM909943.1.923 >EF073875.1.782	100 X92 99.77 X85 99.53 X193			
Micrococcales Acidimicrobiales Acidimicrobiales Acidimicrobiales Gaiellales Desulfobacterales Anaerolineales Rhizobiales	Microbacteriaceae Acidimicrobiaceae Acidimicrobiales_X Gaiellales_X Desulfobulbaceae Anaerolineaceae Rhizobiales_Incertae_Sedis	JG34-KF-361_X Lysinimonas CL500-29_marine_group Acidimicrobiales_XX Gaiellales_XX [Desulfobacterium]_catecholicum_group Anaerolineaceae_X Bauldia	JG34-KF-361_XX Lysinimonas_X CL500-29_marine_group_X Acidimicrobiales_XXX Gaiellales_XXX [Desulfobacterium]_catecholicum_group_X Anaerolineaceae_XX Bauldia_X	>HE861245.1.923 >FJ568349.1.591 >EF019527.1.1372 >EF019692.1.1362 >JX171822.1.731 >KF424855.1.853 >JQ376947.1.778 >EF019286.1.1337	100 X123 99.26 X105 100 X81 100 X185 99.53 X87			
Rhizobiales Micrococcales Cytophagales KD4–96_X Acidimicrobiales Desulfobacterales SBR2076_X	Xanthobacteraceae Intrasporangiaceae Cytophagaceae KD4-96_XX Iamiaceae Desulfobacteraceae SBR2076_XX	Pseudolabrys Oryzihumus Cytophagaceae_X KD4-96_XXX Iamia Desulfatirhabdium SBR2076_XXX	Pseudolabrys_X Oryzihumus_X Cytophagaceae_XX KD4-96_XXXX lamia_X Desulfatirhabdium_X SBR2076_XXXX	>HQ844552.1.1457 >EF034374.1.820 >JN868123.1.876 >JX967597.1.890 >KF275501.1.772 >FJ529202.1.588 >CU923637.1.1318	99.75 X122 99.76 X206 98.34 X117 100 X157 99.75 X262 100 X100			
Acidimicrobiales Anaerolineales Acidimicrobiales Caulobacterales Rhizobiales Coriobacteriales Holophagales	Acidimicrobiales_X Anaerolineaceae Acidimicrobiaceae Hyphomonadaceae Hyphomicrobiaceae Coriobacteriaceae Holophagaceae	Acidimicrobiales_XX Anaerolineaceae_X CL500-29_marine_group Woodsholea Hyphomicrobiaceae_X Coriobacteriaceae_X Holophagaceae_X	Acidimicrobiales_XXX Anaerolineaceae_XX CL500-29_marine_group_X Woodsholea_X Hyphomicrobiaceae_XX Coriobacteriaceae_XX Holophagaceae_XX	>EF516030.1.1440 >KM107857.1.536 >KM841222.1.807 >LN570440.1.1296 >HE860805.1.936 >FR732325.1.658 >FR732181.1.581	99.53 X113			
Rhizobiales Chthoniobacterales Rhizobiales Rhizobiales Rhizobiales Rhizobiales SC-I-84 Ignavibacteriales	Bradyrhizobiaceae  DA101_soil_group  Hyphomicrobiaceae  Rhizobiales_Incertae_Sedis  Xanthobacteraceae  Crenotrichaceae  SC-I-84_X  BSV26	Bradyrhizobium  DA101_soil_group_X  Devosia  Bauldia  Pseudolabrys  Crenothrix  SC-I-84_XX  BSV26_X	Bradyrhizobium_X DA101_soil_group_XX Devosia_X Bauldia_X Pseudolabrys_X Crenothrix_X SC-I-84_XXX BSV26_XX	>EF613950.1.867 >HE861319.1.933 >DQ648956.1.1282 >HQ462526.1.1224 >EF664828.1.832 >ABSP01000657.1821.3334 >EU869802.1.1030	100 X230 100 X136 100 X74 98.12 X153 99.3 X142			
Anaerolineales Coriobacteriales Planctomycetales Rhizobiales Sphingobacteriales Saccharibacteria_XX Chloroplast_X	Anaerolineaceae Coriobacteriaceae Planctomycetaceae Rhizobiales_Incertae_Sedis Chitinophagaceae Saccharibacteria_XXX Chloroplast_XX	Anaerolineaceae_X Coriobacteriaceae_X Pir4_lineage Nordella Ferruginibacter Saccharibacteria_XXXX Chloroplast_XXX	Anaerolineaceae_XX Coriobacteriaceae_XX Pir4_lineage_X Nordella_X Ferruginibacter_X Saccharibacteria_XXXXX Chloroplast_XXXX	>EU644265.1.1458 >FQ658747.1.1316 >KJ955690.1.1475 >HM253616.1.1351 >GQ264032.1.1439 >FJ849217.1.1453 >JN833504.1.800 >JQ383731.1.746	96.77 X226 99.25 X129 97.6 X191 100 X119 100 X121 100 X118			
KD4-96_X Burkholderiales OPB35_soil_group_X Corynebacteriales Sphingobacteriales Chthoniobacterales Clostridiales	KD4-96_XX Comamonadaceae OPB35_soil_group_XX Mycobacteriaceae Lentimicrobiaceae DA101_soil_group Christensenellaceae	KD4-96_XXX Comamonadaceae_X OPB35_soil_group_XXX Mycobacterium Lentimicrobiaceae_X DA101_soil_group_X Christensenellaceae_R-7_group	KD4-96_XXXX Comamonadaceae_XX OPB35_soil_group_XXXX Mycobacterium_X Lentimicrobiaceae_XX DA101_soil_group_XX Christensenellaceae_R-7_group_X	>JX859930.1.1080 >KF071137.1.1352 >LC017385.1.591 >JF089640.1.1338 >AB659778.1.879 >JQ368584.1.808 >EF034664.1.835	100 X148 99.77 X252 96.24 X205 100 X158 100 X173 99.53 X253 100 X375			
Xanthomonadales Planctomycetales Chthoniobacterales Parcubacteria_XX Acidimicrobiales Micrococcales Acidimicrobiales Opitutales	Xanthomonadales_Incertae_Sedis Planctomycetaceae DA101_soil_group Parcubacteria_XXX Acidimicrobiaceae Microbacteriaceae Acidimicrobiaceae Opitutaceae	Xanthomonadales_Incertae_Sedis_X Pir4_lineage DA101_soil_group_X Parcubacteria_XXXX CL500-29_marine_group Lysinimonas Acidimicrobiaceae_X Opitutus	Xanthomonadales_Incertae_Sedis_XX Pir4_lineage_X DA101_soil_group_XX Parcubacteria_XXXXX CL500-29_marine_group_X Lysinimonas_X Acidimicrobiaceae_XX Opitutus_X	>AJ532712.1.1305 >FN594626.1.859 >JQ368582.1.808 >FJ902567.1.983 >FN824835.1.1286 >AB116404.1.1151 >JF179403.1.1342 >FQ659926.1.1379	99.77 X134 100 X172 99.77 X228 96.77 X132 99.5 X194 100 X276 100 X127			
Caulobacterales Rhizobiales Solirubrobacterales KD4–96_X Anaerolineales Planctomycetales Acidimicrobiales	Hyphomonadaceae Hyphomicrobiaceae Conexibacteraceae KD4-96_XX Anaerolineaceae Planctomycetaceae Acidimicrobiales_X	Woodsholea Hyphomicrobiaceae_X Conexibacter KD4-96_XXX Anaerolinea Pir4_lineage Acidimicrobiales XX	Woodsholea_X Hyphomicrobiaceae_XX Conexibacter_X KD4-96_XXXX Anaerolinea_X Pir4_lineage_X Acidimicrobiales_XXX	>KF275539.1.796 >GQ397031.1.1447 >EU223949.1.1514 >AB280370.1.890 >GQ183421.1.737 >FN659215.1.876	100 X111 100 X168 99.06 X170 99.75 X140 95.04 X97 98.57 X126			
Opitutales Anaerolineales Coriobacteriales Rhizobiales Solibacterales Nitrosomonadales Methylococcales	Opitutaceae Anaerolineaceae Coriobacteriaceae A0839 Solibacteraceae_(Subgroup_3) Nitrosomonadaceae Methylococcaceae	Opitutus Anaerolinea Coriobacteriaceae_X A0839_X C_Solibacter Nitrosomonadaceae_X Methylobacter	Opitutus_X Anaerolinea_X Coriobacteriaceae_XX A0839_XX C_Solibacter_X Nitrosomonadaceae_XX Methylobacter_X	>KJ849553.1.600 >KF275247.1.812 >JQ379870.1.762 >EF034953.1.762 >FJ568509.1.652 >EF074171.1.831 >EF665688.1.829 >HQ534094.1.871 >GO396976.1.1501	98.76 X116 99.75 X114 100 X137 100 X269 100 X187 99.77 X199			
Micrococcales Sphingobacteriales Solirubrobacterales Planctomycetales Gitt-GS-136_X C_Nomurabacteria_X Chlorobiales	Intrasporangiaceae Lentimicrobiaceae TM146 Planctomycetaceae Gitt-GS-136_XX C_Nomurabacteria_XX SJA-28	Oryzihumus Lentimicrobiaceae_X TM146_X Planctomyces Gitt-GS-136_XXX C_Nomurabacteria_XXX SJA-28_X	Oryzihumus_X Lentimicrobiaceae_XX TM146_XX Planctomyces_X Gitt-GS-136_XXXX C_Nomurabacteria_XXXX SJA-28_XX	>GQ396976.1.1501 >FJ644322.1.579 >JF177027.1.1366 >FJ437952.1.1478 >FR734356.1.888 >FR871629.1.928 >GQ264497.1.1457	100 X513 100 X174 99.75 X162 95.82 X197 100 X355			
Rhizobiales Nitrosomonadales C_Nomurabacteria_X Halanaerobiales Xanthomonadales Methylococcales Solirubrobacterales OPB35_soil_group_X	Rhizobiales_Incertae_Sedis Nitrosomonadaceae C_Nomurabacteria_XX ODP1230B8.23 Xanthomonadaceae Methylococcaceae Elev-16S-1332 OPB35_soil_group_XX	Bauldia Nitrosomonadaceae_X C_Nomurabacteria_XXX ODP1230B8.23_X Rhodanobacter Methylococcaceae_X Elev-16S-1332_X OPB35_soil_group_XXX	Bauldia_X Nitrosomonadaceae_XX C_Nomurabacteria_XXXX ODP1230B8.23_XX Rhodanobacter_X Methylococcaceae_XX Elev-16S-1332_XX OPB35_soil_group_XXXX	>JQ386800.1.741 >EF073875.1.782 >JX564295.1.905 >AB464941.1.1424 >AY044039.1.535 >HM216849.1.910 >GQ420860.1.1077 >JQ366889.1.815	97.76 X112 100 X382 100 X399 100 X146			
Myxococcales Opitutales Clostridiales C_Azambacteria_X Desulfuromonadales Anaerolineales Solirubrobacterales	BIrii41 Opitutaceae Eubacteriaceae C_Azambacteria_XX Geobacteraceae Anaerolineaceae TM146	BIrii41_X Opitutus Acetobacterium C_Azambacteria_XXX Geobacter Anaerolineaceae_X TM146_X	BIrii41_XX Opitutus_X Acetobacterium_X C_Azambacteria_XXXX Geobacter_X Anaerolineaceae_XX TM146_XX	>GQ096763.1.1363 >AB661129.1.881 >HE860825.1.932 >KP686645.1.1427 >HQ290498.1.832 >AY917513.1.780 >AB630587.1.1461	99.77 X518 100 X222 99.75 X150 93.1 X475 100 X161			
C_Magasanikbacteria_X Gaiellales Syntrophobacterales Anaerolineales Opitutales Micrococcales Bacteroidetes_vadinHA17_X	C_Magasanikbacteria_XX Gaiellales_X Syntrophaceae Anaerolineaceae Opitutaceae Cellulomonadaceae Bacteroidetes_vadinHA17_XX	C_Magasanikbacteria_XXX Gaiellales_XX Smithella Anaerolineaceae_X Opitutus Actinotalea Bacteroidetes_vadinHA17_XXX	C_Magasanikbacteria_XXXX Gaiellales_XXX Smithella_X Anaerolineaceae_XX Opitutus_X Actinotalea_X Bacteroidetes_vadinHA17_XXXX	>JF420809.1.1071 >JQ369231.1.803 >LN715709.1.897 >FJ568594.1.655 >JF208044.1.1377 >EF034399.1.801 >GQ183147.1.792	99.77 X251 100 X195 98.83 X177 100 X141 100 X166			
Holophagales Micrococcales Sphingobacteriales Anaerolineales C_Nomurabacteria_X Desulfobacterales Xanthomonadales SB-5_X	Holophagaceae Intrasporangiaceae Chitinophagaceae Anaerolineaceae C_Nomurabacteria_XX Desulfobacteraceae Xanthomonadales_Incertae_Sedis SB-5_XX	Geothrix Oryzihumus Terrimonas Anaerolineaceae_X C_Nomurabacteria_XXX Desulfatirhabdium Acidibacter SB-5_XXX	Geothrix_X Oryzihumus_X Terrimonas_X Anaerolineaceae_XX C_Nomurabacteria_XXXX Desulfatirhabdium_X Acidibacter_X SB-5_XXXX	>GQ339218.1.917 >EU978745.1.1103 >AM940533.1.800 >EF589981.1.1374 >KF875608.1.862 >GU556333.1.591 >GQ457052.1.626 >DQ415815.1.1483	99.76 X499 98.26 X200 97.3 X217 99.77 X164 100 X300			
Blastocatellales Rhizobiales Myxococcales Methylococcales Cytophagales MB-A2-108_X Rhodocyclales	Blastocatellaceae_(Subgroup_4) Rhizobiales_Incertae_Sedis BIrii41 Methylococcaceae Cytophagaceae MB-A2-108_XX Rhodocyclaceae	Aridibacter Bauldia BIrii41_X Methylobacter Cytophagaceae_X MB-A2-108_XXX C_Accumulibacter	Aridibacter_X Bauldia_X BIrii41_XX Methylobacter_X Cytophagaceae_XX MB-A2-108_XXXX C_Accumulibacter_X	>EF589982.1.1372 >JQ386800.1.741 >EF018374.1.1385 >JF202547.1.1356 >KC922927.1.518 >GU202377.1.572 >HQ910626.1.883	100 X279 98.76 X176 98.36 X266 99.77 X384 98.34 X326 100 X201			
Frankiales Opitutales Rhizobiales Anaerolineales Propionibacteriales Cytophagales Gaiellales	Nakamurellaceae Opitutaceae Bradyrhizobiaceae Anaerolineaceae Nocardioidaceae Cytophagaceae Gaiellaceae	Nakamurella Opitutus Rhodopseudomonas Anaerolineaceae_X Marmoricola Cytophagaceae_X Gaiella	Nakamurella_X Opitutus_X Rhodopseudomonas_X Anaerolineaceae_XX Marmoricola_spMIM116 Cytophagaceae_XX Gaiella_X	>EF018802.1.1366 >AM945502.1.895 >HM312932.1.1308 >JN868224.1.867 >AB686494.1.1250 >JN855503.1.1003 >AB659067.1.836	98.83 X381 99.75 X722 89.58 X393 100 X181 100 X244 100 X167			
Rhizobiales Anaerolineales Subgroup_17_X Clostridiales Opitutales Solibacterales Parcubacteria_XX Chthoniobacterales	A0839 Anaerolineaceae Subgroup_17_XX Family_XII Opitutaceae Solibacteraceae_(Subgroup_3) Parcubacteria_XXX DA101_soil_group	A0839_X Anaerolineaceae_X Subgroup_17_XXX Guggenheimella Opitutus C_Solibacter Parcubacteria_XXXX DA101_soil_group_X	A0839_XX Anaerolineaceae_XX Subgroup_17_XXXX Guggenheimella_X Opitutus_X Acidobacteria_bacterium_SCGC_AAA204-D14 Parcubacteria_XXXXX DA101_soil_group_XX	>AB196032.1.561 >EF589981.1.1374 >JF432892.1.1034 >KC606680.1.787 >LK024952.1.667 >JF488162.1.740 >LK025639.1.623 >EF019076.1.1385	100 X233 96.53 X213 100 X361 99.75 X329 99.06 X698 99.5 X311 99.76 X280 98.12 X487			
Sphingobacteriales KD4–96_X Anaerolineales Methylococcales Frankiales Acidimicrobiales Propionibacteriales	Lentimicrobiaceae  KD4-96_XX  Anaerolineaceae  Crenotrichaceae  Nakamurellaceae  Acidimicrobiales_X  Nocardioidaceae	Lentimicrobiaceae_X KD4-96_XXX Anaerolineaceae_X Crenothrix Nakamurella Acidimicrobiales_XX Nocardioides	Lentimicrobiaceae_XX KD4-96_XXXX Anaerolineaceae_XX Crenothrix_X Nakamurella_X Acidimicrobiales_XXX Nocardioides_X	>EF019076.1.1385 >JF733664.1.870 >AB660450.1.836 >KC606918.1.776 >EU124843.1.925 >HQ899507.1.952 >FN548071.1.637 >AB206015.1.568	99.53 X219 99 X354 98.76 X175 100 X524 99.51 X281 100 X196			
Solirubrobacterales Opitutales KD4-96_X Parcubacteria_XX Sphingobacteriales Rhizobiales Subgroup_6_X	Elev-16S-1332 Opitutaceae KD4-96_XX Parcubacteria_XXX Chitinophagaceae Rhizobiales_Incertae_Sedis Subgroup_6_XX	Elev-16S-1332_X Opitutus KD4-96_XXX Parcubacteria_XXXX Ferruginibacter Bauldia Subgroup_6_XXX	Elev-16S-1332_XX Opitutus_X KD4-96_XXXX Parcubacteria_XXXXX Ferruginibacter_X Bauldia_X Subgroup_6_XXXX	>GQ425912.1.1047 >FM956597.1.932 >AY922044.1.1353 >AB672277.1.1429 >EU499702.1.1409 >LN570377.1.1323 >GQ366413.1.1064	98.59 X264 98.59 X314 100 X517 98.26 X403 100 X558 99.75 X486 99.77 X417			
Clostridiales Rhizobiales Anaerolineales Micromonosporales C_Nomurabacteria_X Planctomycetales Holophagales Myxococcales	Clostridiaceae_1 Rhizobiales_Incertae_Sedis Anaerolineaceae Micromonosporaceae C_Nomurabacteria_XX Planctomycetaceae Holophagaceae BIrii41	Clostridium_sensu_stricto_12 Bauldia Anaerolineaceae_X Actinoplanes C_Nomurabacteria_XXX Planctomycetaceae_X Geothrix BIrii41_X	Clostridium_sensu_stricto_12_X Bauldia_X Anaerolineaceae_XX Actinoplanes_X C_Nomurabacteria_XXXX Planctomycetaceae_XX Geothrix_X BIrii41_XX	>HG324550.1.850 >AY102320.1.1308 >AY917513.1.780 >AM158398.1.893 >FQ659552.1.1416 >EU135226.1.1299 >GQ390237.1.1464 >EF465081.1.850	100 X319 96.03 X220 100 X275 98.03 X483 97.14 X284 99.77 X308			
C_Nomurabacteria_X OPB41_X Rhizobiales Solibacterales Tepidisphaerales Acidimicrobiales Anaerolineales	C_Nomurabacteria_XX OPB41_XX Xanthobacteraceae Solibacteraceae_(Subgroup_3) Tepidisphaeraceae Acidimicrobiales_X Anaerolineaceae	C_Nomurabacteria_XXX OPB41_XXX Pseudolabrys Paludibaculum Tepidisphaeraceae_X Acidimicrobiales_XX Anaerolineaceae_X	C_Nomurabacteria_XXXX OPB41_XXXX Pseudolabrys_X Paludibaculum_X Tepidisphaeraceae_XX Acidimicrobiales_XXX Anaerolineaceae_XX	>L1 403081.1.830 >JX564295.1.905 >AM746257.1.829 >AB630411.1.1412 >AY647413.1.726 >JN795620.1.762 >GQ487882.1.849 >KC606918.1.776	97.54 X509 99.77 X529 100 X152 100 X397 97.76 X256 100 X278			
Myxococcales Rhizobiales Burkholderiales Cytophagales Cytophagales Methylococcales KD4-96_X	Blrii41 Rhizobiales_Incertae_Sedis Alcaligenaceae Cytophagaceae Cytophagaceae Methylococcales_X KD4-96_XX	BIrii41_X Bauldia Alcaligenaceae_X Cytophagaceae_X Cytophagaceae_X Methylococcales_XX KD4-96_XXX	BIrii41_XX Bauldia_X Alcaligenaceae_XX Cytophagaceae_XX Cytophagaceae_XX Methylococcales_XXX KD4-96_XXXX	>HQ664226.1.750 >AB630437.1.1406 >AJ863276.1.1047 >FJ946608.1.1290 >JF703332.1.1426 >AM409902.1.902 >FR732107.1.852	100 X297 100 X223 99.05 X366 100 X463 97.89 X485 99.25 X139			
Cytophagales Nitrosomonadales Blastocatellales Syntrophobacterales Anaerolineales KD4-96_X Rhizobiales Oligoflexales	Cytophagaceae Nitrosomonadaceae Blastocatellaceae_(Subgroup_4) Syntrophaceae Anaerolineaceae KD4-96_XX Xanthobacteraceae 0319-6G20	Chryseolinea Nitrosomonadaceae_X RB41 Syntrophaceae_X Anaerolineaceae_X KD4-96_XXX Pseudolabrys 0319-6G20_X	Chryseolinea_X Nitrosomonadaceae_XX RB41_X Syntrophaceae_XX Anaerolineaceae_XX KD4-96_XXXX Pseudolabrys_X 0319-6G20_XX	>JF703557.1.1428 >GQ421097.1.1066 >FJ849538.1.1484 >DQ642334.1.952 >FQ658747.1.1316 >EF516339.1.1420 >JF295951.1.881 >KM154265.1.615	99.53 X821 99.53 X402 98.51 X368 99.5 X238 99.5 X214			
Burkholderiales Bacteroidetes_vadinHA17_X TK10_X Bacteroidales C_Nomurabacteria_X MB-A2-108_X Coriobacteriales	Comamonadaceae Bacteroidetes_vadinHA17_XX TK10_XX Porphyromonadaceae C_Nomurabacteria_XX MB-A2-108_XX Coriobacteriaceae	Comamonadaceae_X Bacteroidetes_vadinHA17_XXX TK10_XXX Paludibacter C_Nomurabacteria_XXX MB-A2-108_XXX Coriobacteriaceae_X	Comamonadaceae_XX Bacteroidetes_vadinHA17_XXXX TK10_XXXX Paludibacter_X C_Nomurabacteria_XXXX MB-A2-108_XXXX Coriobacteriaceae_XX	>EU150282.1.1492 >AB660787.1.880 >AB205862.1.564 >GU471806.1.578 >JX564295.1.905 >EF220535.1.846 >FN824875.1.1267	99.53 X571 100 X459 98.51 X207 99.29 X658			
Burkholderiales Ignavibacteriales Myxococcales S-BQ2-57_soil_group_X KD4-96_X Ignavibacteriales Anaerolineales	Comamonadaceae PHOS-HE36 Haliangiaceae S-BQ2-57_soil_group_XX KD4-96_XX BSV26 Anaerolineaceae	Variovorax PHOS-HE36_X Haliangium S-BQ2-57_soil_group_XXX KD4-96_XXX BSV26_X Leptolinea	Variovorax_spSRS16 PHOS_HE36_XX Haliangium_X S_BQ2_57_soil_group_XXXX KD4_96_XXXX BSV26_XX Leptolinea_X	>AY621157.1.1512 >KC605828.1.794 >EU299673.1.810 >JN672055.1.1305 >HM269966.1.1321 >KC922471.1.775 >EF460002.1.891	99.53 X839 99.77 X391 100 X237 100 X650 98.33 X324 93.8 X245			
Subgroup_7 Xanthomonadales Thiotrichales Gaiellales Anaerolineales Dehalococcoidales Acidimicrobiales Desulfobacterales	Subgroup_7_X Xanthomonadales_Incertae_Sedis Thiotrichaceae Gaiellales_X Anaerolineaceae Dehalococcoidaceae Acidimicrobiales_X Desulfobulbaceae	Subgroup_7_XX Xanthomonadales_Incertae_Sedis_X Thiotrichaceae_X Gaiellales_XX Anaerolineaceae_X Dehalogenimonas Acidimicrobiales_XX Desulfobulbaceae_X	Subgroup_7_XXX  Xanthomonadales_Incertae_Sedis_XX  Thiotrichaceae_XX  Gaiellales_XXX  Anaerolineaceae_XX  Dehalogenimonas_X  Acidimicrobiales_XXX  Desulfobulbaceae_XX	>EF663641.1.877 >LN571359.1.1369 >JQ793333.1.681 >AB656990.1.902 >JQ379775.1.763 >EF667708.1.885 >AB630854.1.1444 >GQ420946.1.1080	99.53 X405 98.83 X241			
Myxococcales Planctomycetales Nitrosomonadales Chlamydiales Gaiellales Anaerolineales Campylobacterales	Haliangiaceae Planctomycetaceae Nitrosomonadaceae Parachlamydiaceae Gaiellales_X Anaerolineaceae Helicobacteraceae	Haliangium Pirellula Nitrosomonadaceae_X C_Protochlamydia Gaiellales_XX Anaerolineaceae_X Sulfuricurvum	Haliangium_X Pirellula_X Nitrosomonadaceae_XX C_Protochlamydia_X Gaiellales_XXX Anaerolineaceae_XX Sulfuricurvum_X	>EF662754.1.818 >JX948506.1.844 >EF073875.1.782 >AB518086.1.587 >GQ425880.1.1043 >KC606888.1.778 >AM181817.1.894	100 X273 99.53 X212 92.72 X301 99.53 X242 99.26 X380 100 X741			
Opitutales Planctomycetales Rhodospirillales Nitrosomonadales Chthoniobacterales Rhizobiales Cytophagales Saccharibacteria_XX	Opitutaceae Planctomycetaceae Rhodospirillaceae Nitrosomonadaceae DA101_soil_group Hyphomicrobiaceae Cytophagaceae Saccharibacteria_XXX	Opitutus Pir4_lineage Rhodospirillaceae_X Nitrosomonadaceae_X DA101_soil_group_X Hyphomicrobium Cytophagaceae_X Saccharibacteria_XXXX	Opitutus_X Pir4_lineage_X Rhodospirillaceae_XX Nitrosomonadaceae_XX DA101_soil_group_XX Hyphomicrobium_X Cytophagaceae_XX Saccharibacteria_XXXXX	>HM069087.1.1508 >FN594691.1.1482 >KM139685.1.562 >KC922842.1.728 >EU861862.1.1524 >HM921151.1.1276 >JQ373576.1.792 >AF145815.1.1484	99.77 X313 99.76 X379 94.03 X522 99.53 X274 100 X216 100 X656			
Opitutales Anaerolineales Myxococcales Cytophagales Solirubrobacterales Rhizobiales Nitrosomonadales	Opitutaceae Anaerolineaceae Haliangiaceae Cytophagaceae TM146 Xanthobacteraceae Nitrosomonadaceae	Alterococcus Leptolinea Haliangium Chryseolinea TM146_X Pseudolabrys Nitrosomonadaceae_X	Alterococcus_X Leptolinea_X Haliangium_X Chryseolinea_X TM146_XX Pseudolabrys_X Nitrosomonadaceae_XX	>FJ801187.1.1525 >KC607104.1.769 >EF664306.1.824 >FJ568533.1.604 >KC605643.1.796 >FJ807446.1.839 >EF664309.1.832	97.89 X488 92.06 X236 99.77 X733 99.29 X303 100 X149 100 X343			
Corynebacteriales Opitutales Sphingobacteriales KD4–96_X Planctomycetales Micromonosporales Myxococcales Bacteroidetes_vadinHA17_X	Nocardiaceae  Opitutaceae Chitinophagaceae KD4-96_XX Planctomycetaceae Micromonosporaceae Haliangiaceae Bacteroidetes_vadinHA17_XX	Rhodococcus Opitutus Terrimonas KD4–96_XXX Planctomycetaceae_X Dactylosporangium Haliangium Bacteroidetes_vadinHA17_XXX	Rhodococcus_sp2216.25.15  Opitutus_X Terrimonas_X KD4-96_XXXX Planctomycetaceae_XX Dactylosporangium_maewongense Haliangium_X Bacteroidetes_vadinHA17_XXXX	>AB094463.1.1434 >GU127816.1.1486 >FJ592636.1.1398 >FJ615932.1.764 >JQ376910.1.778 >AB495209.1.1468 >EF664306.1.824	99.75 X386 99.3 X356 99.05 X432 99.75 X289 99.76 X294 100 X292 99.77 X299			
Corynebacteriales Flavobacteriales Saccharibacteria_XX Saccharibacteria_XX Parcubacteria_XX Myxococcales OPB35_soil_group_X	Mycobacteriaceae Flavobacteriaceae Saccharibacteria_XXX Saccharibacteria_XXX Parcubacteria_XXX Haliangiaceae OPB35_soil_group_XX	Mycobacterium Flavobacterium Saccharibacteria_XXXX Saccharibacteria_XXXX Parcubacteria_XXXX Haliangium OPB35_soil_group_XXX	Mycobacterium_X Flavobacterium_saccharophilum Saccharibacteria_XXXXX Saccharibacteria_XXXXX Parcubacteria_XXXXX Haliangium_X OPB35_soil_group_XXXX	>EF460089.1.912 >EF516107.1.1437 >AB473208.1.1439 >FJ568620.1.654 >JN634215.1.910 >KC607326.1.746 >AB658953.1.905 >JX981686.1.1060	100 X282 100 X430 99 X607 96.77 X1454 99.27 X1028 99.07 X484 99.77 X413			
SBR2076_X MSBL3_X Sphingobacteriales Burkholderiales Rickettsiales Rhodobacterales Myxococcales Clostridiales	SBR2076_XX MSBL3_XX Chitinophagaceae Comamonadaceae Mitochondria Rhodobacteraceae Haliangiaceae Christensenellaceae	SBR2076_XXX MSBL3_XXX Chitinophagaceae_X Ramlibacter Anomodon_rugelii Rhodobacteraceae_X Haliangium	SBR2076_XXXX MSBL3_XXXX Chitinophagaceae_XX Ramlibacter_X Anomodon_rugelii_X Rhodobacteraceae_XX Haliangium_X	>JX079283.1.801 >JN447786.1.1465 >EF020181.1.1389 >AB487384.1.1371 >JF973314.31281.33002 >AB529676.1.709 >EF515931.1.1464	94.29 X225 92.97 X746 99.29 X569 100 X317 100 X489 100 X505 99.06 X773			
Cytophagales Anaerolineales Micrococcales Micrococcales Gaiellales Rhizobiales Clostridiales	Cytophagaceae Anaerolineaceae Demequinaceae Intrasporangiaceae Gaiellales_X Rhizobiales_Incertae_Sedis Caldicoprobacteraceae	Christensenellaceae_R-7_group Cytophagaceae_X Anaerolineaceae_X Demequina Oryzihumus Gaiellales_XX Bauldia Caldicoprobacter	Christensenellaceae_R-7_group_X Cytophagaceae_XX Anaerolineaceae_XX Demequina_X Oryzihumus_X Gaiellales_XXX Bauldia_X Caldicoprobacter_X	>KF803011.1.800 >KF973876.1.592 >KC607214.1.764 >EF034863.1.828 >EF034317.1.810 >AB659064.1.899 >GU983338.1.1354 >EF034782.1.825	100 X555 98.26 X1077 99.75 X235 100 X611 100 X143 99.75 X364			
KD4-96_X Acidimicrobiales Propionibacteriales Chromatiales SBR2076_X Raphanus_sativus_(radish) Fibrobacterales	KD4-96_XX Acidimicrobiales_X Propionibacteriaceae Chromatiaceae SBR2076_XX Raphanus_sativus_(radish)_X Fibrobacteraceae	KD4-96_XXX Acidimicrobiales_XX Propionibacteriaceae_X Thiobaca SBR2076_XXX Raphanus_sativus_(radish)_XX Fibrobacteraceae_X	KD4-96_XXXX Acidimicrobiales_XXX Propionibacteriaceae_XX Thiobaca_X SBR2076_XXXX Raphanus_sativus_(radish)_XXX Fibrobacteraceae_XX	>GQ366439.1.1029 >GU202318.1.1167 >JX405969.1.894 >HM128102.1.1453 >KJ465959.1.1356 >AC255230.106080.107549 >EF075320.1.792	99.25 X211 99.75 X257 98.53 X270 96.96 X1705 90.57 X260 100 X394 98.81 X1086			
Anaerolineales Spirochaetales Desulfuromonadales Acidimicrobiales Anaerolineales Solibacterales Anaerolineales Solibacterales Solibacterales	Anaerolineaceae Spirochaetaceae Geobacteraceae Acidimicrobiales_X Anaerolineaceae Solibacteraceae_(Subgroup_3) Anaerolineaceae Solibacteraceae(Subgroup_3)	Anaerolineaceae_X Spirochaeta_2 Geobacter Acidimicrobiales_XX Anaerolineaceae_X Bryobacter Anaerolineaceae_X C_Solibacter	Anaerolineaceae_XX Spirochaeta_2_X Geobacter_X Acidimicrobiales_XXX Anaerolineaceae_XX Bryobacter_X Anaerolineaceae_XX C_Solibacter_X	>KC606918.1.776 >AB659117.1.868 >AB658885.1.890 >GQ397046.1.1478 >EF589981.1.1374 >AB657937.1.853 >KC606918.1.776 >AB300097.1.1295	95.29 X464 96.02 X764 100 X639 100 X192 97.02 X369 100 X286 100 X240			
OPB35_soil_group_X Sphingobacteriales Methylococcales Rhizobiales Anaerolineales SAR11_clade WCHB1-32_X	OPB35_soil_group_XX Lentimicrobiaceae Crenotrichaceae Rhizobiales_X Anaerolineaceae Surface_1 WCHB1-32_XX	OPB35_soil_group_XXX Lentimicrobiaceae_X Crenothrix Rhizobiales_XX Anaerolineaceae_X Surface_1_X WCHB1-32_XXX	OPB35_soil_group_XXXX Lentimicrobiaceae_XX Crenothrix_X Rhizobiales_XXX Anaerolineaceae_XX Surface_1_XX WCHB1-32_XXXX	>AB300097.1.1295 >JX491602.1.589 >AB240492.1.1486 >GQ421019.1.1067 >AB630426.1.1409 >KC606918.1.776 >FR684008.1.1435 >EU644161.1.1400	99.77 X456 99.53 X623 99.53 X1069 100 X179			
Anaerolineales Micrococcales S-BQ2-57_soil_group_X KD4-96_X Rhizobiales Clostridiales Parcubacteria_XX	Anaerolineaceae Intrasporangiaceae S-BQ2-57_soil_group_XX KD4-96_XX Hyphomicrobiaceae Christensenellaceae Parcubacteria_XXX	Anaerolineaceae_X Oryzihumus S-BQ2-57_soil_group_XXX KD4-96_XXX Rhodomicrobium Christensenellaceae_R-7_group Parcubacteria_XXXX	Anaerolineaceae_XX Oryzihumus_X S-BQ2-57_soil_group_XXXX KD4-96_XXXX Rhodomicrobium_X Christensenellaceae_R-7_group_X Parcubacteria_XXXXX	>FJ645708.1.1377 >JX859921.1.1080 >HE861309.1.929 >GQ366439.1.1029 >AB630711.1.1406 >FJ810722.1.781 >JF301012.1.583	99.25 X594 100 X348 100 X506 96.81 X1173			
Solirubrobacterales Xanthomonadales S-BQ2-57_soil_group_X KD4-96_X Planctomycetales Anaerolineales KD4-96_X Anaerolineales	Elev-16S-1332 Xanthomonadales_Incertae_Sedis S-BQ2-57_soil_group_XX KD4-96_XX Planctomycetaceae Anaerolineaceae KD4-96_XX Anaerolineaceae	Elev-16S-1332_X Acidibacter S-BQ2-57_soil_group_XXX KD4-96_XXX Planctomycetaceae_X Anaerolinea KD4-96_XXX Anaerolineaceae_X	Elev-16S-1332_XX Acidibacter_X S-BQ2-57_soil_group_XXXX KD4-96_XXXX Planctomycetaceae_XX Anaerolinea_X KD4-96_XXXX Anaerolineaceae_XX	>GQ420860.1.1077 >JQ371754.1.794 >JN002848.1.1027 >FQ659410.1.1319 >HE614843.1.845 >GQ182779.1.1356 >KM170044.1.600	97.42 X651 99.5 X340 95.99 X544 93.05 X465 99.5 X378			
Anaerolineales Nitrosomonadales Propionibacteriales Bacteroidetes_vadinHA17_X Parcubacteria_XX Subgroup_10 Methylococcales JG30-KF-CM45	Anaerolineaceae Nitrosomonadaceae Nocardioidaceae Bacteroidetes_vadinHA17_XX Parcubacteria_XXX ABS-19 Crenotrichaceae JG30-KF-CM45_X	Anaerolineaceae_X Nitrosomonadaceae_X Nocardioides Bacteroidetes_vadinHA17_XXX Parcubacteria_XXXX ABS-19_X Crenothrix JG30-KF-CM45_XX	Anaerolineaceae_XX Nitrosomonadaceae_XX Nocardioides_X Bacteroidetes_vadinHA17_XXXX Parcubacteria_XXXXX ABS-19_XX Crenothrix_X JG30-KF-CM45_XXX	>DQ110032.1.898 >AB252927.1.1503 >KM130505.1.581 >EF460089.1.912 >JQ380380.1.759 >GQ420896.1.1080 >JQ793373.1.628 >EF018623.1.1351	100 X545 99.52 X705 98.82 X450 98.04 X1760 100 X539 99.77 X736 99.75 X186			
Anaerolineales Rhizobiales Myxococcales Hydrogenophilales Burkholderiales Cellvibrionales Gemmatimonadales Planctomycetales	Anaerolineaceae Xanthobacteraceae Blrii41 Hydrogenophilaceae Comamonadaceae Porticoccaceae Gemmatimonadaceae Planctomycetaceae	Anaerolineaceae_X Variibacter BIrii41_X Thiobacillus Rhizobacter C1-B045 Gemmatimonadaceae_X Pir4_lineage	Anaerolineaceae_XX Variibacter_X BIrii41_XX Thiobacillus_X Rhizobacter_X C1-B045_X Gemmatimonadaceae_XX	>EF507991.1.779 >AJ534617.1.1232 >EF219815.1.838 >EF667637.1.916 >AB989863.1.1453 >JN051298.1.878 >HM445332.1.1473	95.04 X209 99.5 X250 100 X581 95.55 X426 100 X852 100 X772 99.26 X429		The state of the s	
Cytophagales Nitrosomonadales Sphingobacteriales C_Azambacteria_X Gemmatimonadales Nitrosomonadales Chthoniobacterales	Cytophagaceae Nitrosomonadaceae Sphingobacteriales_X C_Azambacteria_XX Gemmatimonadaceae Nitrosomonadaceae DA101_soil_group	Cytophagaceae_X Nitrosomonadaceae_X Sphingobacteriales_XX C_Azambacteria_XXX Gemmatimonas Nitrosomonadaceae_X DA101_soil_group_X	Pir4_lineage_X Cytophagaceae_XX Nitrosomonadaceae_XX Sphingobacteriales_XXX C_Azambacteria_XXXX Gemmatimonas_X Nitrosomonadaceae_XX DA101_soil_group_XX	>AB630875.1.1457 >FM201023.1.887 >CU921875.1.1356 >HE861044.1.948 >HM486201.1.870 >JN976793.1.897 >AB657626.1.886 >JF833587.1.1463	98.77 X3034 98.09 X480 100 X444 99.3 X884			
SJA-15_X KD4-96_X Anaerolineales Anaerolineales Rhizobiales Micrococcales Selenomonadales	SJA-15_XX KD4-96_XX Anaerolineaceae Anaerolineaceae Bradyrhizobiaceae Intrasporangiaceae Veillonellaceae	SJA-15_XXX KD4-96_XXX Anaerolineaceae_X Bellilinea Bradyrhizobiaceae_X Tetrasphaera Veillonellaceae_X	SJA-15_XXXX KD4-96_XXXX Anaerolineaceae_XX Bellilinea_X Bradyrhizobiaceae_XX Tetrasphaera_X Veillonellaceae_XX	>EF393252.1.886 >KF366547.1.1037 >EF589981.1.1374 >KR476592.1.767 >HE860789.1.895 >GQ369174.1.661 >AB999362.1.881	98.26 X288 98.26 X272 97.52 X255 94.04 X341 99.75 X231 99.75 X738 99.06 X855			
Rhizobiales Bacteroidetes_vadinHA17_X Myxococcales Micrococcales Rhizobiales Bacteroidetes_vadinHA17_X Clostridiales Chromatiales	Rhizobiales_Incertae_Sedis Bacteroidetes_vadinHA17_XX BIrii41 Cellulomonadaceae JG34-KF-361 Bacteroidetes_vadinHA17_XX Eubacteriaceae Chromatiaceae	Rhizomicrobium  Bacteroidetes_vadinHA17_XXX  BIrii41_X  Actinotalea  JG34-KF-361_X  Bacteroidetes_vadinHA17_XXX  Acetobacterium  Chromatiaceae_X	Rhizomicrobium_X Bacteroidetes_vadinHA17_XXXX BIrii41_XX Actinotalea_X JG34-KF-361_XX Bacteroidetes_vadinHA17_XXXX Acetobacterium_X Chromatiaceae_XX	>AY921822.1.1339 >JQ371631.1.795 >GQ096763.1.1363 >DQ628959.1.1442 >EU298324.1.802 >JX981697.1.1043 >HE860825.1.932 >HQ003530.1.1492	100 X371 99.29 X495 95.07 X1453 99.75 X590 100 X447 99.05 X449			
Micrococcales Saccharibacteria_XX Bdellovibrionales Nitrosomonadales Cytophagales Solirubrobacterales Subgroup_6_X	Intrasporangiaceae Saccharibacteria_XXX Bacteriovoracaceae Nitrosomonadaceae Cytophagaceae Elev-16S-1332 Subgroup_6_XX	Oryzihumus Saccharibacteria_XXXX Peredibacter Nitrosomonadaceae_X Cytophagaceae_X Elev-16S-1332_X Subgroup_6_XXX	Oryzihumus_X Saccharibacteria_XXXXX Bdellovibrio_spSD2GS Nitrosomonadaceae_XX Cytophagaceae_XX Elev-16S-1332_XX Subgroup_6_XXXX	>GQ366523.1.1061 >AY571850.1.1398 >GQ179642.1.813 >HE860893.1.934 >KP724747.1.1053 >HQ197609.1.830 >EU298888.1.834	100 X861 97.27 X637 94.16 X1052 99.77 X178 97.62 X729 99.06 X351 99.53 X732			
C_Azambacteria_X Methylococcales Opitutales Tepidisphaerales Xanthomonadales Blastocatellales Clostridiales	C_Azambacteria_XX Methylococcaceae Opitutaceae Tepidisphaeraceae Xanthomonadales_Incertae_Sedis Blastocatellaceae_(Subgroup_4) Peptostreptococcaceae	C_Azambacteria_XXX Methylobacter Opitutus Tepidisphaeraceae_X Steroidobacter RB41 Peptoclostridium	C_Azambacteria_XXXX  Methylobacter_X  Opitutus_X  Tepidisphaeraceae_XX  Steroidobacter_X  RB41_X  Peptoclostridium_X	>EF072692.1.875 >EU124841.1.928 >HG324731.1.590 >EF665263.1.813 >AM158345.1.915 >EF664930.1.821 >AB330612.1.687	94.33 X661 99.77 X657 98.36 X532 99.5 X312 99.3 X791 99.76 X1019 100 X1013			
Nitrosomonadales Opitutales Cytophagales Sphingobacteriales C_Nomurabacteria_X Chlamydiales Micrococcales C_Nomurabacteria_X	Nitrosomonadaceae Opitutaceae Cytophagaceae Sphingobacteriales_X C_Nomurabacteria_XX Simkaniaceae Intrasporangiaceae C_Nomurabacteria_XX	Nitrosomonadaceae_X Opitutus Cytophagaceae_X Sphingobacteriales_XX C_Nomurabacteria_XXX Simkaniaceae_X Oryzihumus C_Nomurabacteria_XXX	Nitrosomonadaceae_XX Opitutus_X Cytophagaceae_XX Sphingobacteriales_XXX C_Nomurabacteria_XXXX Simkaniaceae_XX Oryzihumus_X C_Nomurabacteria_XXXX	>DQ450770.1.1367 >EF516172.1.1475 >KC922986.1.700 >JF341433.1.790 >FR871629.1.928 >DQ903988.1.1373 >EU978745.1.1103 >JX564295.1.905	99.77 X477 100 X1029 99.05 X415 100 X600 96.56 X939 97.89 X460 99.76 X385			
Clostridiales Caldilineales MB-A2-108_X Bacteroidales Frankiales Bacillales Opitutales	Caldicoprobacteraceae Caldilineaceae MB-A2-108_XX Prolixibacteraceae Frankiales_X Planococcaceae Opitutaceae	Caldicoprobacter Caldilineaceae_X MB-A2-108_XXX BSV13 Frankiales_XX Sporosarcina Opitutus	Caldicoprobacter_X Caldilineaceae_XX MB-A2-108_XXXX BSV13_X Frankiales_XXX Sporosarcina_psychrophila Opitutus_X	>EF034782.1.825 >CU921400.1.1327 >HQ664389.1.752 >FQ659581.1.1347 >JX171950.1.809 >AB680853.1.1477 >EF516121.1.1449	99.51 X564 98.26 X353 100 X452 99.53 X438 98.28 X291 100 X360 99.77 X787			
Corynebacteriales Kineosporiales Anaerolineales KD4–96_X Bacteroidetes_vadinHA17_X C_Nomurabacteria_X Coriobacteriales Rhizobiales	Mycobacteriaceae Kineosporiaceae Anaerolineaceae KD4-96_XX Bacteroidetes_vadinHA17_XX C_Nomurabacteria_XX Coriobacteriaceae Rhizobiales_Incertae_Sedis	Mycobacterium Kineosporia Leptolinea KD4-96_XXX Bacteroidetes_vadinHA17_XXX C_Nomurabacteria_XXX Coriobacteriaceae_X Bauldia	Mycobacterium_X Kineosporia_X Leptolinea_X KD4-96_XXXX Bacteroidetes_vadinHA17_XXXX C_Nomurabacteria_XXXX Coriobacteriaceae_XX Bauldia_X	>AM934740.1.1337 >FN548028.1.637 >KC607104.1.769 >JX859933.1.1080 >KF973906.1.688 >FJ482182.1.1476 >FN824875.1.1267 >EF665038.1.791	100 X977 99.51 X1070 93.55 X473 100 X634 99.53 X420 96.81 X938			
Rhizobiales Rhizobiales Clostridiales	Rhizobiales_Incertae_Sedis Bradyrhizobiaceae Peptococcaceae	Bauldia Bradyrhizobium Desulfosporosinus	Bauldia_X Bradyrhizobium_X Desulfosporosinus_X	>EF665038.1.791 >JF139745.1.1310 >EF034375.1.826	100 X437 100 X234	1500000 8100000 4.3e+07 2.2e+08		