— Bacteria-Actinobacteria-Actinobacteria-Corynebacteriales-Nocardiaceae-Nocardia_uniformis_WP_067517266.1 — Bacteria-Actinobacteria-Actinobacteria-Micrococcales-Intrasporangiaceae-Knoellia flava WP 084100086.1 — Bacteria-Actinobacteria-Actinobacteria-NA-NA-Actinobacteria_bacterium_OV450_WP_054223448.1 —— Bacteria-Actinobacteria-Actinobacteria-Pseudonocardiales-Pseudonocardiaceae-Sciscionella_sp._SE31_WP_031468571.1 — Bacteria-DeinococcusThermus-Deinococci-Deinococcales-Deinococcaceae-Deinococcus_marmoris_WP_081845919.1 — Bacteria-Actinobacteria-Actinobacteria-Streptomycetales-Streptomycetaceae-Streptomyces_sp._BoleA5_WP_018556775.1 Bacteria-Planctomycetes-NA-NA-NA-Planctomycetes bacterium KS4 WP 145077491.1 Bacteria-Firmicutes-Negativicutes-Selenomonadales-Sporomusaceae-Pelosinus_propionicus_WP_139214788.1 — Bacteria-Firmicutes-Negativicutes-Veillonellales-Veillonellaceae-Lucifera_butyrica_WP_122630553.1 - Bacteria-Firmicutes-Negativicutes-Selenomonadales-Sporomusaceae-Propionispora_sp._2_237_WP_054261390.1 — Bacteria-NA-NA-NA-NA-Natronospirillum_operossus_WP_135484594.1 Eukaryota-Acytosteliales-Acytosteliales-Acytosteliales-Acytosteliaceae-Acytostelium_subglobosum_XP_012750219.1 —— Eukaryota-Acytosteliales-Acytosteliales-Acytosteliales-Cavenderiaceae-Cavenderia_fasciculata_XP_004359199.1 Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Neoparamoeba_aestuarina_MMETSP0161_c5077_g1_i1.p1 vota-Amoebozoa-NA-NA-Paramoebidae-Paramoeba_atlantica_MMETSP0151_c930_g1_i1.p1 Bacteria-Proteobacteria-Gammaproteobacteria-Alteromonadales-Psychromonadaceae-Psychromonas_ingrahamii_WP_011771065.1 - Bacteria-Proteobacteria-Gammaproteobacteria-Oceanospirillales-Oceanospirillaceae-Motiliproteus_sp._MSK221_WP_076718274.1 - Bacteria-Spirochaetes-Spirochaetia-Spirochaetales-Spirochaetaceae-Alkalispirochaeta_odontotermitis_WP_037562239.1 —— Eukaryota-Stramenopiles-NA-NA-NA-Fibrocapsa_japonica_MMETSP1339_c13707_g1_i1.p1 ttonellales-Chattonellaceae-Heterosigma_akashiwo_MMETSP0292_c8182_g1_i1.p1 karyota-Haptophyta-NA-Isochrysidales-Noelaerhabdaceae-Emiliania_huxleyi_MMETSP0997_c22611_g1_i1.p1 Eukaryota-Haptophyta-NA-Prymnesiales-NA-Calcidiscus_leptoporus_MMETSP1334_c17513_g1_i1.p1 ——— Eukaryota-Haptophyta-NA-Prymnesiales-NA-Isochrysis_galbana_MMETSP0943_c21566_g1_i1.p1 karyota-Haptophyta-NA-Pavlovales-Pavlovaceae-Pavlova_lutheri_MMETSP1463_c16053_g1_i1.p1 —— Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Trichosphaerium_sp_MMETSP0405_c6794_g1_i1.p1 eochaetaceae-Gloeochaete_witrockiana_MMETSP0308_c30875_g1_i1.p1 Eukaryota-Glaucophyta-Glaucophyta-NA-NA-Cyanoptyche_gloeocystis_MMETSP1086_c15095_g1_i1.p1 Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Pessonella_sp_MMETSP0420_c6110_g1_i1.p2 Eukaryota-Rhodophyta-Bangiophyceae-NA-NA-Rhodosorus_marinus_MMETSP0315_c5765_g1_i1.p1 ukaryota-Rhodophyta-Bangiophyceae-Porphyridiales-Porphyridiaceae-Porphyridium purpureum 3404.16 — Eukaryota-Apicomplexa-Conoidasida-Eugregarinorida-Gregarinidae-Gregarina_niphandrodes_XP_011134576.1 ukaryota-Basidiomycota-Ustilaginomycetes-Ustilaginales-Ustilaginaceae-Anthracocystis_flocculosa_XP_007876107.1 —— Eukaryota-Ascomycota-Dothideomycetes-Capnodiales-Mycosphaerellaceae-Zymoseptoria_tritici_XP_003847887.1 Eukaryota-Ascomycota-NA-NA-NA-Saitoella complicata XP 019023994.1 Eukaryota-Mucoromycota-Glomeromycetes-Glomerales-Glomeraceae-Rhizophagus_irregularis_XP_025166010.1 aromycetales-Dipodascaceae-Yarrowia lipolytica XP 503897.1 ukaryota-Chytridiomycota-Chytridiomycetes-Spizellomycetales-Spizellomycetaceae-Spizellomyces_punctatus_XP_016612774.1 Eukaryota-Apicomplexa-NA-Unranked-NA-Alveolata_sp_MMETSP0288_c14184_g1_i1.p1 Retaria-NA-NA-NA-Ammonia_sp_MMETSP1384_c27382_g1_i1.p1 Eukaryota-Retaria-NA-NA-NA-Elphidium_margaritaceum_MMETSP1385_c25243_g1_i1.p1 - Eukaryota-Retaria-NA-NA-NA-Sorites_sp_MMETSP0191_c21603_g1_i1.p1 ukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Bigelowiella natans MMETSP1054 c24727 g1 i1.p1 Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Norrisiella_sphaerica_MMETSP0113_c13738_g1_i1.p1 Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Lotharella_amoebiformis_MMETSP0042_c9192_g1_i1.p1 ——— MSTRG.28031.1.p1 Eukaryota-Chlorophyta-NA-NA-NA-Tetraselmis_striata_MMETSP0817_c8499_g1_i1.p1 ukaryota-Chlorophyta-Nephroselmidophyceae-NA-NA-Nephroselmis_pyriformis_MMETSP0034_c15581_g3_i3.p1 Eukaryota-Streptophyta-NA-Asterales-Asteraceae-Helianthus annuus XP 021970236.1 Streptophyta-NA-Malpighiales-Euphorbiaceae-Jatropha curcas XP 012092111.1 ukaryota-Chlorophyta-NA-NA-NA-Picocystis_salinarum_MMETSP0807_c1002_g1_i1.p1 — Bacteria-Proteobacteria-Betaproteobacteria-Burkholderiales-Comamonadaceae-Rhodoferax_koreense_WP_076200559.1 — Bacteria-Proteobacteria-Gammaproteobacteria-Thiotrichales-Thiotrichaceae-Thiothrix_eikelboomii_WP_078921448.1 — Bacteria-Proteobacteria-Gammaproteobacteria-Oceanospirillales-Saccharospirillaceae-Gynuella_sunshinyii_WP_044619048.1 Conoidasida-Eucoccidiorida-Sarcocystidae-Besnoitia_besnoiti_XP_029217601.1 ryota-Apicomplexa-Conoidasida-Eucoccidiorida-Sarcocystidae-Toxoplasma_gondii_XP_018635283.1 — Eukaryota-Ciliophora-Oligohymenophorea-Peniculida-Parameciidae-Paramecium_tetraurelia_XP_001452958.1 Eukaryota-Ciliophora-NA-Unranked-NA-Blepharisma_japonicum_MMETSP1395_c17724_g1_i1.p1 Eukaryota-Ciliophora-NA-Unranked-NA-Euplotes_focardii_MMETSP0205_c9278_g1_i1.p1 Bacteria-Planctomycetes-Planctomycetia-Planctomycetales-Isosphaeraceae-Aquisphaera_giovannonii_WP_148594720.1 ——— Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Alexandrium_tamarense_MMETSP0382_c3075_g1_i1.p1 Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Azadinium_spinosum_MMETSP1038_c24826_g1_i1.p1 —— Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Pyrodinium_bahamense_MMETSP0796_c118769_g1_i1.p1 Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Lingulodinium_polyedra_MMETSP1032_c29049_g1_i1.p1 Eukaryota-Ciliophora-NA-Unranked-NA-Tiarina_fusus_MMETSP0472_c11618_g1_i1.p1 Eukaryota-Euglenida-NA-NA-Unranked-Neobodo_designis_MMETSP1114_c29114_g1_i1.p1 Viruses-Coronaviridae-NA-NA-NA-Beluga_whale_coronavirus_SW1_YP_001876447.1 Eukaryota-Palpitomonas-NA-NA-NA-Palpitomonas_bilix_MMETSP0780_c14528_g1_i3.p1 — Paulinella_chromatophora_CCAC0185_nuclear___scaffold8477-m65065 — Bacteria-Verrucomicrobia-Opitutae-Opitutales-Opitutaceae-Opitutus_sp._GAS368_WP_091059041.1 Paulinella_ovalis_nuclear_SingleCell___SAG1_utg7180000024255.g11047.t1 ——— MSTRG.25663.1.p1 - 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Bacteria-Chloroflexi-Anaerolineae-Anaerolineales-Anaerolineaceae-Bellilinea caldifistulae WP 114676094.1 — Bacteria-Chloroflexi-Thermoflexia-Thermoflexales-Thermoflexaceae-Thermoflexus_hugenholtzii_WP_088572299.1 ——— Eukaryota-Haptophyta-NA-Prymnesiales-NA-Chrysochromulina rotalis MMETSP0287 c538 g1 i1.p1 — Bacteria-CandidatusKryptonia-NA-NA-NA-Candidatus_Thermokryptus_mobilis_WP_140945705.1 — Eukaryota-Cryptophyta-NA-Cryptomonadales-Hemiselmidaceae-Hemiselmis_tepida_MMETSP1355_c14983_g1_i1.p1 — Eukaryota-Cryptophyta-NA-Pyrenomonadales-NA-Geminigera_sp_MMETSP1102_c69447_g1_i1.p1 Eukaryota-Stramenopiles-Bacillariophyceae-Bacillariales-Bacillariaceae-Nitzschia_sp_MMETSP0014_c10221_g1_i1.p1 Eukaryota-Stramenopiles-NA-NA-NA-Pseudo_pungens_MMETSP1061_c2904_g1_i1.p1 —— Bacteria-CandidatusCloacimonetes-NA-NA-NA-Candidatus_Syntrophosphaera_thermopropionivorans_WP_133201765.1 Bacteria-Planctomycetes-Phycisphaerae-Sedimentisphaerales-Sedimentisphaeraceae-Sedimentisphaera_salicampi_WP_ — Bacteria-Tenericutes-Mollicutes-Mycoplasmatales-Mycoplasmataceae-Mycoplasma_pirum_WP_036448637.1 Eukaryota-Acytosteliales-Acytosteliales-Acytosteliales-Cavenderiaceae-Cavenderia_fasciculata_XP_004366716.1 — Eukaryota-Arthropoda-Branchiopoda-Diplostraca-Daphniidae-Daphnia_pulex_jgi301442 Eukaryota-Platyhelminthes-Trematoda-Strigeidida-Schistosomatidae-Schistosoma_mansoni_XP_018653103.1 — Eukaryota-Priapulida-Priapulimorpha-Priapulimorphida-Priapulidae-Priapulus_caudatus_XP_014664425.1 Eukaryota-Brachiopoda-Lingulata-Lingulida-Lingulidae-Lingula_anatina_XP_013404707.1 Eukaryota-Choanoflagellata-Choanoflagellata-Choanoflagellata-Salpingoecidae-Salpingoeca_rosetta_XP_004991987.1 - 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Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Chlorarachnion_reptans_MMETSP0109_c6387_g1_i1.p1 — Eukaryota-Porifera-Demospongiae-Haplosclerida-Niphatidae-Amphimedon_queenslandica_XP_011406314.1 Bacteria-Firmicutes-Bacilli-Bacillales-Paenibacillaceae-Paenibacillus_campinasensis_WP_095264336.1 — Bacteria-CandidatusAtribacteria-NA-NA-Atribacteria bacterium JGI 0000014F07 WP 090599013.1 —— Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Halalkalibacillus_halophilus_WP_027963514.1 —— Bacteria-NA-NA-Haloplasmatales-Haloplasmataceae-Haloplasma_contractile_WP_008826175.1 — Bacteria-CandidatusCryosericota-CandidatusCryosericia-CandidatusCryosericales-CandidatusCryosericaceae-Candidatus_Cryosericum_hinesii_WP_119087379.1 Bacteria-Actinobacteria-Actinobacteria-Micrococcales-Brevibacteriaceae-Brevibacterium_senegalense_WP_019159483.1
Bacteria-Actinobacteria-Actinobacteria-Micrococcales-Brevibacteriaceae-NA_WP_087007487.1 Bacteria-Caldiserica-Caldisericia-Caldisericales-Caldisericaceae-Caldisericum exile WP 083836383.1 — Bacteria-Coprothermobacterota-Coprothermobacteria-Coprothermobacterales-Coprothermobacteraceae-Coprothermobacter_proteolyticus_WP_107689853.1 — Bacteria-Tenericutes-Mollicutes-Anaeroplasmatales-Anaeroplasmataceae-Anaeroplasma_bactoclasticum_WP_119015812.1 Bacteria-DeinococcusThermus-Deinococci-Deinococcales-Deinococcaceae-Deinococcus_koreensis_WP_103312182.1 Bacteria-DeinococcusThermus-Deinococci-Deinococcales-Deinococcaceae-NA_WP_039685329.1 Bacteria-NA-NA-NA-NA_WP_112938582.1 Bacteria-Proteobacteria-Betaproteobacteria-Burkholderiales-Comamonadaceae-Rhodoferax_fermentans_WP_078366011.1 Bacteria-Spirochaetes-Spirochaetia-Spirochaetales-Spirochaetaceae-Spirochaeta_cellobiosiphila_WP_028973622.1 Bacteria-Thermotogae-Thermotogae-Petrotogales-Petrotogaceae-Marinitoga_lauensis_WP_129409226.1

Bacteria-Thermotogae-Thermotogae-Petrotogales-Petrotogaceae-NA_WP_014296915.1 Archaea-Euryarchaeota-Halobacteria-Haloferacales-Halorubraceae-Halolamina_rubra_WP_049980764.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-NA-halophilic_archaeon_LT46_WP_137287285.1 Archaea-NA-NA-NA-NA-archaeon AArcSI WP 119813953.1