— Bacteria-Abditibacteriota-Abditibacteria-Abditibacteriales-Abitibacteriaceae-Abditibacterium_utsteinense_WP_105483197.1 —— Bacteria-Chlorobi-Chlorobia-Chlorobiales-Chlorobiaceae-Chlorobaculum_limnaeum_WP_069810451.1 ——— Bacteria-Chlorobi-Chlorobia-Chlorobiales-Chlorobiaceae-Chlorobium_chlorochromatii_WP_011361585.1 Bacteria-Chlorobi-Chlorobia-Chlorobiales-Chlorobiaceae-Chloroherpeton_thalassium_WP_012499947.1 —— Bacteria-Actinobacteria-Actinobacteria-Micrococcales-Microbacteriaceae-Chitinimonas_sp._R344_WP_143856644.1 ——— Bacteria-Armatimonadetes-NA-NA-NA-Armatimonadetes_bacterium_UphvlAr1_WP_146669747.1 — Bacteria-Spirochaetes-Spirochaetia-Leptospirales-Leptospiraceae-Leptospira_jelokensis_WP_135752233.1 — Bacteria-Armatimonadetes-Chthonomonadetes-Chthonomonadales-Chthonomonadaceae-Chthonomonas_calidirosea_WP_044950371.1 Bacteria-Bacteroidetes-Flavobacteriia-Flavobacteriales-Flavobacteriaceae-Muricauda_beolgyonensis_WP_127023268.1 ———— Bacteria-Tenericutes-Mollicutes-Anaeroplasmatales-Anaeroplasmataceae-Anaeroplasma_bactoclasticum_WP_119016388.1 Bacteria-Aquificae-Aquificae-Aquificales-Aquificaceae-Aquifex_aeolicus_NP_213503.1 — Bacteria-Aquificae-Aquificae-Aquificales-Hydrogenothermaceae-Persephonella_sp._KM09Lau8_WP_029522877.1 Bacteria-Nitrospirae-Nitrospira-Nitrospirales-Nitrospiraceae-NA_WP_028842138.1 Bacteria-Nitrospirae-Nitrospirales-Nitrospiraceae-Thermodesulfovibrio_thiophilus_WP_028844329.1 — Bacteria-Aquificae-Aquificae-Aquificales-NA-Thermosulfidibacter_takaii_WP_068550664.1 —— Bacteria-Planctomycetes-Planctomycetia-Planctomycetales-Planctomycetaceae-Thermogutta_terrifontis_WP_095415614.1 - Bacteria-Planctomycetes-NA-NA-NA-Planctomycetes_bacterium_Mal4_WP_145367214.1 — Bacteria-Planctomycetes-Planctomycetia-Planctomycetales-Planctomycetaceae-Planctomyces_sp._SHPL14_WP_075094248.1 Bacteria-Deferribacteres-Deferribacteres-Deferribacterales-Deferribacteraceae-Calditerrivibrio_nitroreducens_WP_013452050.1 Bacteria-Deferribacteres-Deferribacteres-Deferribacterales-Deferribacteraceae-Flexistipes_sinusarabici_WP_013887203.1 — Bacteria-Deferribacteres-Deferribacteres-Deferribacterales-Deferribacteraceae-Denitrovibrio_acetiphilus_WP_013012038.1 — Bacteria-Nitrospinae-Nitrospinia-Nitrospinales-Nitrospinaceae-Nitrospina_gracilis_WP_005011754.1 — Bacteria-Nitrospirae-Nitrospira-Nitrospirales-Nitrospiraceae-Nitrospira_defluvii_WP_013247571.1 Bacteria-Cyanobacteria-NA-Nostocales-Rivulariaceae-Calothrix_sp._PCC_7507_WP_015131474.1 Bacteria-Chloroflexi-Anaerolineae-Anaerolineales-Anaerolineaceae-Anaerolinea_thermolimosa_WP_062193185.1 - Bacteria-Chloroflexi-Anaerolineae-NA-NA-anaerobic_bacterium_MOCFX2_WP_119065185.1 — Bacteria-Kiritimatiellaeota-Kiritimatiellae-Kiritimatiellales-Kiritimatiellaceae-Kiritimatiella_glycovorans_WP_052882448.1 — Bacteria-Verrucomicrobia-NA-NA-NA-Verrucomicrobia_bacterium_LW23_WP_108040840.1 Bacteria-Verrucomicrobia-NA-NA-NA_WP_019111941.1 - Bacteria-Verrucomicrobia-Verrucomicrobiae-Verrucomicrobiales-Verrucomicrobiaceae-Haloferula_sp._BvORR071_WP_035616422.1 Bacteria-NA-NA-NA-NA-Vampirococcus sp. LiM WP 128700964.1 Bacteria-Bacteroidetes-Bacteroidia-Bacteroidales-Rikenellaceae-Millionella_massiliensis_WP_071134431.1 —— Bacteria-Bacteroidetes-Saprospiria-Saprospirales-Haliscomenobacteraceae-Phaeodactylibacter_luteus_WP_147166514.1 Bacteria-Balneolaeota-Balneolia-Balneolales-Balneolaceae-Gracilimonas_tropica_WP_020404693.1 — Bacteria-Balneolaeota-Balneolia-Balneolales-Balneolaceae-Rhodohalobacter_sp._SW132_WP_116037561.1 Bacteria-Fibrobacteres-Fibrobacteria-Fibrobacterales-Fibrobacteraceae-Fibrobacter_sp._UWB1_WP_088656412.1 Bacteria-Fibrobacteres-Fibrobacteria-Fibrobacterales-Fibrobacteraceae-NA_WP_072827564.1 Bacteria-Lentisphaerae-Lentisphaeria-Lentisphaerales-Lentisphaeraceae-Lentisphaera_araneosa_WP_007279076.1 — Bacteria-Spirochaetes-Spirochaetia-Spirochaetales-Spirochaetaceae-Marispirochaeta_aestuarii_WP_083052402.1 Bacteria-Spirochaetes-Spirochaetia-Spirochaetales-Spirochaetaceae-Oceanispirochaeta_sp._M1_WP_114631704.1 Bacteria-Chloroflexi-Dehalococcoidia-NA-NA-Dehalogenimonas_formicexedens_WP_076004083.1 — Bacteria-Cyanobacteria-NA-Oscillatoriales-NA-Oscillatoriales_cyanobacterium_JSC12_WP_009556687.1 — Bacteria-Cyanobacteria-NA-Synechococcales-Synechococcaceae-NA_WP_011429853.1 —— Bacteria-DeinococcusThermus-Deinococci-Deinococcales-Deinococcaceae-Deinococcus_indicus_WP_088250051.1 — Bacteria-DeinococcusThermus-Deinococci-Thermales-Thermaceae-Meiothermus_chliarophilus_WP_027891902.1 — Bacteria-DeinococcusThermus-Deinococci-Thermales-Thermaceae-Thermus_arciformis_WP_093005704.1 Eukaryota-Arthropoda-Malacostraca-Amphipoda-Hyalellidae-Hyalella_azteca_XP_018006306.1 Eukaryota-Chordata-Actinopteri-Salmoniformes-Salmonidae-Oncorhynchus_tshawytscha_XP_024267420.1 - Bacteria-NA-NA-NA-NA-bacterium_1XD876_WP_120398861.1 ———— Bacteria-NA-NA-NA-NA_WP_038324095.1 Bacteria-Synergistetes-Synergistia-Synergistales-Synergistaceae-Cloacibacillus_porcorum_WP_066748062.1 — Bacteria-Synergistetes-Synergistia-Synergistales-Synergistaceae-Synergistes_jonesii_WP_037975798.1 — Bacteria-Proteobacteria-Gammaproteobacteria-Chromatiales-Chromatiaceae-Allochromatium_vinosum_WP_012970352.1 —— Bacteria-Proteobacteria-Gammaproteobacteria-Chromatiales-Chromatiaceae-Imhoffiella_purpurea_WP_043749393.1 — Bacteria-Proteobacteria-Gammaproteobacteria-Chromatiales-Chromatiaceae-Thiobaca_trueperi_WP_132975044.1 Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Amphidinium massartii MMETSP0689 c62357 g1 i1.p1 Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Symbiodinium sp MMETSP1369 c47007 g1 i1.p1 Eukaryota-Retaria-NA-NA-NA-Sorites sp MMETSP0191 c8745 g1 i1.p1 Eukaryota-Ciliophora-NA-Unranked-NA-Strombidinopsis_acuminatum_MMETSP0126_c14186_g1_i1.p1 Eukaryota-Haptophyta-NA-Prymnesiales-NA-Coccolithus_pelagicussspbraarudi_MMETSP0164_c36304_g1_i1.p1 ———— Eukaryota-Stramenopiles-NA-NA-NA-Phaeomonas parva MMETSP1163 c3653 g1 i1.p1 Paulinella_chromatophora_CCAC0185_nuclear___scaffold2039-m24429 — Bacteria-Thermodesulfobacteria-Thermodesulfobacteria-Thermodesulfobacteriales-Thermodesulfobacteriaceae-Thermodesulfatator_autotrophicus_WP_068541014.1 — Bacteria-Thermodesulfobacteria-Thermodesulfobacteria-Thermodesulfobacteriales-Thermodesulfobacteriaceae-Thermosulfurimonas_dismutans_WP_068670543.1 ———— Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Halarchaeum_sp._CBA1220_WP_123076248.1 ———— Archaea-Euryarchaeota-Halobacteria-Haloferacales-Halorubraceae-Halolamina_sediminis_WP_053948519.1 — Archaea-NA-NA-NA-NA-archaeon_AArcSI_WP_119818786.1 — Archaea-Thaumarchaeota-NA-NA-NA-Candidatus Nitrosotalea bavarica WP 101477041.1 Archaea-Thaumarchaeota-NA-NA-NA-Thaumarchaeota_archaeon_N4_WP_048196685.1 — Archaea-Thaumarchaeota-Nitrososphaeria-Nitrososphaerales-Nitrososphaeraceae-Candidatus_Nitrososphaera_gargensis_WP_015020523.1 ——— Archaea-Euryarchaeota-Archaeoglobi-Archaeoglobales-Archaeoglobaceae-Archaeoglobus_profundus_WP_012939434.1 ———— Archaea-CandidatusBathyarchaeota-NA-NA-NA-Candidatus_Bathyarchaeota_archaeon_WP_116577327.1 ———— Archaea-Crenarchaeota-Thermoprotei-Desulfurococcales-Desulfurococcaceae-Ignicoccus_hospitalis_WP_012122919.1 ————— Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Acidianus_sulfidivorans_WP_110380476.1 Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Sulfolobus_metallicus_WP_054838248.1 pebozoa-NA-NA-Paramoebidae-Mayorella_sp_MMETSP0417_c5007_g1_i1.p1 — Bacteria-Acidobacteria-Acidobacteriia-Acidobacteriales-Acidobacteriaceae-Acidobacteria_bacterium_KBS_146_WP_026387165.1 Bacteria-Acidobacteria-Acidobacteriales-Acidobacteriales-Acidobacteriaceae-Granulicella_rosea_WP_089408759.1 Acidobacteriia-Acidobacteriales-Acidobacteriaceae-Edaphobacter_modestus_WP_130418885.1 Bacteria-Firmicutes-Clostridia-Clostridiales-Ruminococcaceae-Anaerotruncus_rubiinfantis_WP_066459515.1

Bacteria-Firmicutes-Clostridia-Clostridiales-Ruminococcaceae-NA_WP_118477711.1 —— Bacteria-Actinobacteria-Actinobacteria-Micrococcales-Ruaniaceae-Ruania_albidiflava_WP_022916464.1 cteria-Actinobacteria-Actinobacteria-Pseudonocardiales-Pseudonocardiaceae-Haloechinothrix_alba_WP_089300782.1 Eukaryota-Nematoda-Chromadorea-Rhabditida-Rhabditidae-Caenorhabditis_remanei_XP_003087045.1 — Bacteria-Firmicutes-Clostridia-Clostridiales-ClostridialesFamilyXVII.IncertaeSedis-Thermaerobacter_marianensis_WP_013495017.1

