———— Archaea-Crenarchaeota-Thermoprotei-Thermoproteales-Thermoproteaceae-Caldivirga_sp._MU80_WP_066796409.1 Archaea-Crenarchaeota-Thermoprotei-Thermoproteales-Thermoproteaceae-Vulcanisaeta_distributa_WP_013337225.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Haloarculaceae-Halorientalis_sp._F1325_WP_129069278.1 Archaea-Euryarchaeota-Halobacteria-Haloferacales-Haloferacaceae-NA_WP_008573642.1 72 Archaea-NA-NA-NA-Archaeon_AArcSI_WP_119818932.1 Archaea-Euryarchaeota-Halobacteria-Haloferacales-Haloferacaceae-Haloplanus_vescus_WP_092630956.1 Bacteria Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Halorussus_amylolyticus_WP_132057692.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-NA-halophilic_archaeon_LT46_WP_137283464.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Halorussus_ruber_WP_135825534.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Halarchaeum_sp._CBA1220_WP_123074058.1 —————— Eukaryota-Nematoda-Chromadorea-Rhabditida-Rhabditidae-Caenorhabditis_remanei_XP_003087149.1 — Bacteria-Proteobacteria-Gammaproteobacteria-Enterobacterales-NA-NA_WP_004131470.1 100 Bacteria-Proteobacteria-NA-NA-NA_WP_000423742.1

100 Eukaryota-Arthropoda-Insecta-Phthiraptera-Pediculidae-Pediculus_humanus_XP_002433304.1 Bacteria-Proteobacteria-Gammaproteobacteria-Enterobacterales-NA-NA_WP_010863772.1 <u>Bacteria-Proteobacteria-Gammaproteobacteria-Vibrionales-NA-Vibrionales_bacterium_C3R12_WP_113795949.1</u> 100 Bacteria-Proteobacteria-Gammaproteobacteria-Vibrionales-Vibrionaceae-Photobacterium_lipolyticum_WP_107284554.1 Bacteria-Proteobacteria-Gammaproteobacteria-Vibrionales-Vibrionaceae-Salinivibrio_proteolyticus_WP_077674207.1 Eukaryota-Chordata-Mammalia-Cetacea-Lipotidae-Lipotes_vexillifer_XP_007471579.1 Bacteria-NA-NA-NA-NA-Natronospirillum_operossus_WP_135482266.1 ———— Bacteria-Planctomycetes-NA-NA-NA-Planctomycetes_bacterium_Mal33_WP_145284582.1 Bacteria-Proteobacteria-Gammaproteobacteria-Cellvibrionales-Halieaceae-Halieaceae_bacterium_GH478_WP_133212230.1 Bacteria-Proteobacteria-Gammaproteobacteria-Alteromonadales-Alteromonadaceae-Marinobacter_sp._NP6_WP_127401506.1 Bacteria-Proteobacteria-Gammaproteobacteria-Alteromonadales-Alteromonadaceae-NA_WP_041334256.1 Bacteria-Proteobacteria-Gammaproteobacteria-NA-NA_WP_053112230.1 ——— Bacteria-Proteobacteria-Gammaproteobacteria-Oceanospirillales-Halomonadaceae-Halomonas_sp._BC04_WP_043513535.1 ——— Bacteria-Proteobacteria-NA-NA-NA-Proteobacteria_bacterium_228_WP_104154022.1 — Bacteria-Proteobacteria-Gammaproteobacteria-NA-NA-Thiolapillus_brandeum_WP_041067184.1 - Eukaryota-Stramenopiles-NA-Bicosoecida-Cafeteriaceae-Cafeteria_sp_MMETSP1104_c2923_g1_i1.p1 Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Vexillifera_sp_MMETSP0173_c10538_g1_i1.p1 —— MSTRG.6096.1.p1 ——— Paulinella_chromatophora_CCAC0185_nuclear___scaffold14186-m90258 Paulinella_chromatophora_CCAC0185_nuclear___scaffold6215-m52838 Paulinella_chromatophora_CCAC0185_nuclear___scaffold27326-m131755 ——— MSTRG.9958.1.p1 Paulinella_chromatophora_CCAC0185_nuclear___scaffold6315-m53423 —— Paulinella_ovalis_nuclear_SingleCell___SAG1_utg7180000028822.g12868.t1 Paulinella_ovalis_nuclear_SingleCell___SAG1_utg7180000021045.g9632.t1 ____Paulinella_ovalis_nuclear_SingleCell___SAG3_contig00517.g626.t1 Paulinella_ovalis_nuclear_SingleCell___SAG5_contig00832.g1056.t1 plexa-Conoidasida-Eucoccidiorida-Sarcocystidae-Toxoplasma_gondii_XP_002365419.1 Eukaryota-Retaria-NA-NA-NA-Sorites sp MMETSP0191 c86268 g1 i1.p1 Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Neoparamoeba aestuarina MMETSP0161 c23254 g1 i1.p1 Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Paramoeba_atlantica_MMETSP0151_c12713_g1_i1.p1 Eukaryota-Longamoebia-Longamoebia-Acanthamoebidae-Acanthamoeba_castellanii_XP_004341637.1 ———— Archaea-Crenarchaeota-Thermoprotei-Desulfurococcales-Pyrodictiaceae-Pyrodictium_occultum_WP_058371210.1 ——— Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Acidianus_hospitalis_WP_013775565.1 Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Metallosphaera_cuprina_WP_013736631.1 Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Metallosphaera_hakonensis_WP_110369214.1 ——— Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Sulfodiicoccus_acidiphilus_WP_126451239.1 —— Archaea-Thaumarchaeota-NA-NA-NA-Candidatus_Nitrosotalea_devanaterra_WP_148694459.1 ———— Archaea-Thaumarchaeota-NA-NA-NA-Candidatus_Nitrosotenuis_cloacae_WP_048187104.1 Archaea-Thaumarchaeota-NA-NA-NA-Thaumarchaeota_archaeon_N4_WP_048196528.1 Archaea-Thaumarchaeota-NA-NA-NA-Marine_Group_I_thaumarchaeote_SCGC_AAA799E16_WP_048088682.1 Archaea-Thaumarchaeota-NA-Nitrosopumilales-Nitrosopumilaceae-Nitrosopumilus adriaticus WP 048118777.1 Archaea-Thaumarchaeota-NA-Nitrosopumilales-Nitrosopumilaceae-Candidatus Nitrosarchaeum limnium WP 007402939.1 — Eukaryota-Arthropoda-Insecta-Hymenoptera-Formicidae-Vollenhovia_emeryi_XP_011860385.1 — Archaea-CandidatusKorarchaeota-NA-NA-NA-Candidatus_Methanodesulfokores_washburnensis_WP_125671439.1 Eukaryota-Ascomycota-Dothideomycetes-Capnodiales-Mycosphaerellaceae-Pseudocercospora_fijiensis_XP_007929648.1 Eukaryota-Ascomycota-Pezizomycotina-Undefined-Undefined-Mycosphaerella_fijiensis_jgi34751 ryota-Ascomycota-Eurotiomycetes-Chaetothyriales-Herpotrichiellaceae-Cladophialophora yegresii XP 007754036.1 — Archaea-NA-NA-NA-NA-anaerobic_archaeon_MKD1_WP_147665217.1 Eukaryota-Chordata-NA-NA-Branchiostomidae-Branchiostoma_belcheri_XP_019642621.1 Eukaryota-Platyhelminthes-Cestoda-Cyclophyllidea-Taeniidae-Echinococcus_granulosus_XP_024347737.1 — Archaea-CandidatusBathyarchaeota-NA-NA-NA-Candidatus_Bathyarchaeota_archaeon_WP_116577188.1 — Archaea-CandidatusBathyarchaeota-NA-NA-NA-Candidatus_Bathyarchaeota_archaeon_WP_119816727.1