Legend
Groups
🟥 *Paulinella*
🟩 Archaea
🟦 Bacteria
🟪 Eukaryota
🟫 Viruses
⬛ Other/Misc
Nodes
● *BS* ≥ 95%
BS: ultrafast bootstrap support
Organelle targeting peptides
⬢ Mitochondrial
⬢ Chromatophore (≥100aa)
⬢ Chromatophore (<100aa)
AliStat
Cr 0 1
Bacteria-Acidobacteria-Holophagae-NA-NA-Holophagae_bacterium_WP_116785502.1
Bacteria-Acidobacteria-Thermoanaerobaculia-Thermoanaerobaculales-Thermoanaerobaculaceae-Thermoanaerobaculum_aquaticum_WP_053335146.1
Bacteria-Actinobacteria-Actinobacteria-Frankiales-Frankiaceae-Frankia_casuarinae_WP_063578591.1
Bacteria-Actinobacteria-Actinobacteria-Frankiales-Frankiaceae-NA_WP_011436797.1
Bacteria-Actinobacteria-Actinobacteria-Frankiales-Frankiaceae-Frankia_sp._R43_WP_054571492.1
Bacteria-Actinobacteria-Actinobacteria-Pseudonocardiales-Pseudonocardiaceae-Actinoalloteichus_sp._AHMU_CJ021_WP_103055918.1
Bacteria-CandidatusTectomicrobia-NA-NA-NA-Candidatus_Entotheonella_palauensis_WP_089936028.1
Bacteria-Cyanobacteria-NA-Oscillatoriales-NA-Oscillatoriales_cyanobacterium_MTP1_WP_082695494.1
Bacteria-Nitrospinae-Nitrospinia-Nitrospinales-Nitrospinaceae-Nitrospina_gracilis_WP_005010603.1
Bacteria-Nitrospinae-Nitrospinia-Nitrospinales-Nitrospinaceae-Nitrospina_sp._SCGC_AAA799_C22_WP_048493887.1
Bacteria-CandidatusSaccharibacteria-NA-NA-NA-Candidatus_Saccharibacteria_bacterium_YM_S32_TM7_50_20_WP_104943712.1
Bacteria-CandidatusSaccharibacteria-NA-NA-NA-TM7_phylum_sp._oral_taxon_488_WP_138077279.1
Bacteria-CandidatusSaccharibacteria-NA-NA-NA-Candidatus_Saccharimonas_aalborgensis_WP_015641361.1
Bacteria-Chloroflexi-Ktedonobacteria-Ktedonobacterales-Dictyobacteraceae-Dictyobacter_aurantiacus_WP_126601866.1
Bacteria-Chloroflexi-Ktedonobacteria-Ktedonobacterales-Ktedonobacteraceae-Ktedonobacter_racemifer_WP_083814719.1
Bacteria-Chloroflexi-Ktedonobacteria-Ktedonobacterales-Thermosporotrichaceae-Thermosporothrix_hazakensis_WP_111325688.1
Bacteria-Proteobacteria-Deltaproteobacteria-Myxococcales-Archangiaceae-Melittangium_boletus_WP_095978407.1
Bacteria-Spirochaetes-Spirochaetia-Spirochaetales-Spirochaetaceae-Treponema_denticola_NP_970881.1
Bacteria-Bacteroidetes-Cytophagia-Cytophagales-Amoebophilaceae-Candidatus_Cardinium_hertigii_WP_123663082.1
Bacteria-Bacteroidetes-Cytophagia-Cytophagales-Amoebophilaceae-Cardinium_endosymbiont_of_Dermatophagoides_farinae_WP_144086300.1
Eukaryota-Platyhelminthes-Trematoda-Opisthorchiida-Opisthorchiidae-Opisthorchis_viverrini_XP_009172846.1
Eukaryota-Platyhelminthes-Trematoda-Strigeidida-Schistosomatidae-Schistosoma_haematobium_XP_012799172.1
Eukaryota-Platyhelminthes-Trematoda-Strigeidida-Schistosomatidae-Schistosoma_mansoni_XP_018653280.1
Eukaryota-Annelida-Clitellata-Hirudinida-Glossiphoniidae-Helobdella_robusta_jgi185734
Eukaryota-Priapulida-Priapulimorpha-Priapulimorphida-Priapulidae-Priapulus_caudatus_XP_014661472.1
Eukaryota-Arthropoda-Insecta-Hymenoptera-Braconidae-Diachasma_alloeum_XP_015109673.1
Eukaryota-Arthropoda-Insecta-Hymenoptera-Braconidae-Fopius_arisanus_XP_011308101.1
Eukaryota-Arthropoda-Insecta-Hymenoptera-Braconidae-Microplitis_demolitor_XP_008543211.1
Eukaryota-Placozoa-NA-NA-Trichoplacidae-Trichoplax_adhaerens_XP_002109329.1
Eukaryota-Cnidaria-Anthozoa-Scleractinia-Acroporidae-Acropora_millepora_XP_029205288.1
Eukaryota-Cnidaria-Anthozoa-Scleractinia-Pocilloporidae-Stylophora_pistillata_XP_022787851.1
Eukaryota-Echinodermata-Asteroidea-Valvatida-Acanthasteridae-Acanthaster_planci_XP_022084351.1
Eukaryota-Echinodermata-Echinoidea-Echinoida-Strongylocentrotidae-Strongylocentrotus_purpuratus_XP_011662507.1
Eukaryota-Hemichordata-Enteropneusta-NA-Harrimaniidae-Saccoglossus_kowalevskii_XP_006821640.1
Eukaryota-Chordata-Aves-Apodiformes-Trochilidae-Calypte_anna_XP_030311067.1
Eukaryota-Chordata-Aves-Charadriiformes-Scolopacidae-Calidris_pugnax_XP_014798839.1
Eukaryota-Chordata-Mammalia-Primates-Cheirogaleidae-Microcebus_murinus_XP_012610275.1
Eukaryota-Brachiopoda-Lingulata-Lingulida-Lingulidae-Lingula_anatina_XP_013390069.1
Eukaryota-Brachiopoda-Lingulata-Lingulida-Lingulidae-Lingula_anatina_XP_013390070.1
Eukaryota-Mollusca-Gastropoda-Architaenioglossa-Ampullariidae-Pomacea_canaliculata_XP_025110628.1
Eukaryota-Mollusca-Gastropoda-Aplysiida-Aplysiidae-Aplysia_californica_XP_005104894.1
Eukaryota-Nematoda-Chromadorea-Rhabditida-Rhabditidae-Caenorhabditis_briggsae_XP_002642784.1
Eukaryota-Nematoda-Chromadorea-Rhabditida-Rhabditidae-Caenorhabditis_elegans_NP_498121.1
Eukaryota-Nematoda-Chromadorea-Rhabditida-Strongyloididae-Strongyloides_ratti_XP_024503728.1
Eukaryota-Heterolobosea-NA-NA-NA-Percolomonas_cosmopolitus_MMETSP0758_c9937_g1_i1.p1
Eukaryota-Trichomonadida-Trichomonadida-Trichomonadida-Trichomonadidae-Trichomonas_vaginalis_XP_001311809.1
Eukaryota-Acytosteliales-Acytosteliales-Acytosteliales-Acytosteliaceae-Acytostelium_subglobosum_XP_012756894.1
Eukaryota-Acytosteliales-Acytosteliales-Acytosteliales-Acytosteliaceae-Heterostelium_album_XP_020432479.1
Eukaryota-Acytosteliales-Acytosteliales-Acytosteliales-Cavenderiaceae-Cavenderia_fasciculata_XP_004362258.1
Eukaryota-Dictyosteliales-Dictyosteliales-Dictyosteliales-Dictyosteliaceae-Dictyostelium_discoideum_XP_637700.1
Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Crypthecodinium_cohnii_MMETSP0323_c6357_g1_i1.p1
Eukaryota-Ciliophora-NA-Unranked-NA-Mesodinium_pulex_MMETSP0467_c54519_g1_i1.p3
Eukaryota-Retaria-NA-NA-NA-Sorites_sp_MMETSP0191_c63843_g1_i1.p1
Eukaryota-Alveolata-Dinophyceae-NA-Unranked-Lingulodinium_polyedra_MMETSP1032_c5337_g1_i1.p1
Eukaryota-Ciliophora-NA-Unranked-NA-Aristerostoma_sp_MMETSP0125_c19297_g1_i1.p1
Eukaryota-Heterolobosea-NA-NA-NA-Percolomonas_cosmopolitus_MMETSP0759_c8889_g1_i1.p1
Eukaryota-Alveolata-Dinophyceae-Peridiniales-Kryptoperidiniaceae-Durinskia_baltica_MMETSP0117_c5544_g1_i1.p1
Eukaryota-Stramenopiles-NA-NA-NA-Spumella_elongata_MMETSP1098_c25227_g1_i1.p1
Eukaryota-Stramenopiles-NA-NA-NA-Paraphysomonas_bandaiensis_MMETSP1103_c4214_g1_i1.p1
Eukaryota-Stramenopiles-NA-NA-NA-Paraphysomonas_vestita_MMETSP1107_c22200_g1_i1.p1
Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Bigelowiella_natans_MMETSP1052_c31029_g1_i1.p1
Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Chlorarachnion_reptans_MMETSP0109_c6621_g1_i1.p1
Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Lotharella_globosa_MMETSP0041_c23075_g1_i1.p1
Eukaryota-Choanoflagellata-Choanoflagellata-Choanoflagellata-NA-Acanthoeca_sp_MMETSP0105_c19902_g1_i1.p1
Eukaryota-Choanoflagellata-Choanoflagellata-Choanoflagellata-Salpingoecidae-Monosiga_brevicollis_XP_001750992.1
Eukaryota-Haptophyta-NA-Phaeocystales-Phaeocystaceae-Phaeocystis_antarctica_MMETSP1100_c13075_g1_i1.p1
Eukaryota-Haptophyta-NA-Prymnesiales-NA-Unidentifiedeukaryote_sp_MMETSP1178_c12498_g1_i1.p1
Eukaryota-Haptophyta-NA-Prymnesiales-NA-Chrysochromulina_ericina_MMETSP1096_c47983_g1_i1.p1
Eukaryota-Haptophyta-NA-Prymnesiales-NA-Prymnesium_parvum_MMETSP1083_c16288_g1_i1.p1
Eukaryota-Mesomycetozoea-Ichthyosporea-Ichthyophonida-NA-Sphaeroforma_arctica_XP_014154974.1
Eukaryota-Mesomycetozoea-Ichthyosporea-NA-NA-Capsaspora_owczarzaki_XP_004343850.1
MSTRG.24583.1.p1
Paulinella_chromatophora_CCAC0185_nuclear___scaffold18007-m104136
MSTRG.11874.1.p1
Paulinella_chromatophora_CCAC0185_nuclear___scaffold4328-m41123
Eukaryota-Cryptophyta-NA-Cryptomonadales-Cryptomonadaceae-Cryptomonas_paramecium_MMETSP0038_c12395_g1_i1.p1
Eukaryota-Cryptophyta-NA-Pyrenomonadales-Geminigeraceae-Proteomonas_sulcata_MMETSP1049_c5440_g1_i1.p1
Eukaryota-Cryptophyta-NA-Cryptomonadales-Hemiselmidaceae-Hemiselmis_tepida_MMETSP1355_c1298_g1_i1.p1
Eukaryota-Euglenida-NA-Eutreptiales-NA-Eutreptiella_gymnastica-like_MMETSP0811_c41645_g1_i1.p1
Eukaryota-Streptophyta-Liliopsida-Poales-Poaceae-Panicum_hallii_XP_025797514.1
Eukaryota-Streptophyta-Liliopsida-Poales-Poaceae-Setaria_italica_XP_004982962.1
Eukaryota-Streptophyta-NA-Fabales-Fabaceae-Cicer_arietinum_XP_004497758.1
Eukaryota-Streptophyta-NA-Fabales-Fabaceae-Medicago_truncatula_XP_013467222.1
Eukaryota-Chlorophyta-Chlorophyceae-Chlamydomonadales-Chlamydomonadaceae-Chlamydomonas_chlamydogama_MMETSP1392_c5715_g1_i1.p1
Eukaryota-Chlorophyta-Chlorophyceae-Chlamydomonadales-Dunaliellaceae-Dunaliella_tertiolecta_MMETSP1126_c25805_g1_i1.p1
Eukaryota-Chlorophyta-Chlorophyceae-Chlamydomonadales-Volvocaceae-Volvox_carteri_XP_002956779.1
Eukaryota-Rhodophyta-Compsopogonophyceae-Compsopogonales-Compsopogonaceae-Compsopogon_coeruleus_MMETSP0312_c2677_g1_i2.p1
Eukaryota-Chlorophyta-Mamiellophyceae-Mamiellales-Mamiellaceae-Micromonas_pusilla_MMETSP1404_c13750_g1_i1.p2
Eukaryota-Glaucophyta-Glaucophyta-Gloeochaetales-Gloeochaetaceae-Gloeochaete_witrockiana_MMETSP0308_c26022_g1_i1.p1
Eukaryota-Glaucophyta-Glaucophyta-NA-NA-Cyanoptyche_gloeocystis_MMETSP1086_c14317_g1_i1.p2
Eukaryota-Glaucophyta-Glaucophyta-NA-Cyanophoraceae-Cyanophora_paradoxa_tig00020603_g11829.t1
Eukaryota-Rhodophyta-Bangiophyceae-NA-NA-Rhodosorus_marinus_MMETSP0011_c2537_g1_i1.p1
Eukaryota-Rhodophyta-Bangiophyceae-NA-NA-Rhodosorus_marinus_MMETSP0315_c10632_g1_i1.p1
Eukaryota-Longamoebia-Longamoebia-Longamoebia-Acanthamoebidae-Acanthamoeba_castellanii_XP_004338375.1
Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Mayorella_sp_MMETSP0417_c6939_g1_i1.p1
Eukaryota-Amoebozoa-NA-NA-Paramoebidae-Stygamoeba_regulata_MMETSP0447_c36343_g1_i1.p1
Eukaryota-Heterolobosea-NA-NA-Vahlkampfiidae-Naegleria_gruberi_jgi34772
Eukaryota-Ciliophora-NA-Unranked-NA-Tiarina_fusus_MMETSP0472_c42838_g1_i1.p1
Eukaryota-Porifera-Demospongiae-Haplosclerida-Niphatidae-Amphimedon_queenslandica_jgiAqu1229869
Eukaryota-Apicomplexa-Conoidasida-Eucoccidiorida-Sarcocystidae-Toxoplasma_gondii_XP_018637407.1
Eukaryota-Apicomplexa-NA-Unranked-NA-Alveolata_sp_MMETSP0288_c25723_g1_i1.p1
Eukaryota-Chromeraceae-NA-NA-NA-Vitrella_brassicaformis_MMETSP1451_c4663_g5_i1.p1
Eukaryota-Ascomycota-Leotiomycetes-Helotiales-NA-Phialocephala_scopiformis_XP_018074560.1
Eukaryota-Ascomycota-Sordariomycetes-Hypocreales-Hypocreaceae-Trichoderma_atroviride_jgi53180
Eukaryota-Ascomycota-Sordariomycetes-Hypocreales-Ophiocordycipitaceae-Purpureocillium_lilacinum_XP_018176173.1
Eukaryota-Basidiomycota-Agaricomycetes-Polyporales-Polyporaceae-Dichomitus_squalens_XP_007364899.1
Eukaryota-Basidiomycota-Agaricomycetes-Russulales-Bondarzewiaceae-Heterobasidion_annosum_jgi123851
Eukaryota-Basidiomycota-Agaricomycetes-Russulales-Stereaceae-Stereum_hirsutum_XP_007302715.1
Eukaryota-Basidiomycota-Malasseziomycetes-Malasseziales-Malasseziaceae-Malassezia_pachydermatis_XP_017991423.1
Eukaryota-Chytridiomycota-Chytridiomycetes-Rhizophydiales-NA-Batrachochytrium_dendrobatidis_jgi13412
Eukaryota-Chytridiomycota-Chytridiomycetes-Spizellomycetales-Spizellomycetaceae-Spizellomyces_punctatus_XP_016608417.1
Eukaryota-Mucorales-Mucoraceae-Undefined-Undefined-Mucor_circinelloides_jgi90110
Eukaryota-Mucoromycota-Mucoromycetes-Mucorales-Rhizopodaceae-Rhizopus_microsporus_XP_023462250.1
Eukaryota-Mucoromycota-Mucoromycetes-Mucorales-Phycomycetaceae-Phycomyces_blakesleeanus_jgi74489
Eukaryota-Mucoromycota-Glomeromycetes-Glomerales-Glomeraceae-Rhizophagus_irregularis_XP_025179230.1
Eukaryota-Chromeraceae-NA-NA-NA-Chromera_velia_MMETSP0290_c48453_g1_i1.p1
Eukaryota-Perkinsozoa-NA-Perkinsida-Perkinsidae-Perkinsus_chesapeaki_MMETSP0925_c14239_g1_i1.p1
Eukaryota-Diplomonadida-Diplomonadida-Diplomonadida-Hexamitidae-Giardia_intestinalis_XP_001706386.1
Eukaryota-Fonticulida-Fonticulida-Fonticulida-Fonticulaceae-Fonticula_alba_XP_009498404.1
Eukaryota-Euglenida-NA-NA-Unranked-Neobodo_designis_MMETSP1114_c4980_g1_i1.p1
Eukaryota-Kinetoplastida-Kinetoplastida-Kinetoplastida-Trypanosomatidae-Leishmania_donovani_XP_003865600.1
Eukaryota-Kinetoplastida-Kinetoplastida-Kinetoplastida-Trypanosomatidae-Leishmania_major_XP_001687047.1
Eukaryota-Kinetoplastida-Kinetoplastida-Kinetoplastida-Trypanosomatidae-Trypanosoma_conorhini_XP_029229035.1
Eukaryota-Kinetoplastida-Kinetoplastida-Kinetoplastida-Trypanosomatidae-Trypanosoma_grayi_XP_009310683.1
Viruses-Potyviridae-NA-NA-NA-Cassava_brown_streak_virus_YP_007027011.1
Viruses-Potyviridae-NA-NA-NA-Cassava_brown_streak_virus_YP_007032446.1
Viruses-Potyviridae-NA-NA-NA-Ugandan_cassava_brown_streak_virus_YP_004063681.1
Viruses-Potyviridae-NA-NA-NA-Ugandan_cassava_brown_streak_virus_YP_004063983.1
Eukaryota-Apicomplexa-Conoidasida-Eucoccidiorida-Cryptosporidiidae-Cryptosporidium_parvum_XP_001388085.1
Eukaryota-Retaria-NA-NA-NA-Ammonia_sp_MMETSP1384_c15175_g1_i1.p1
Eukaryota-Entamoebidae-NA-NA-NA-Entamoeba_dispar_XP_001737335.1
Eukaryota-Entamoebidae-NA-NA-NA-Entamoeba_histolytica_XP_650341.1
Eukaryota-Microsporidia-NA-NA-Pleistophoridae-Vavraia_culicis_XP_008074334.1
Eukaryota-Microsporidia-NA-NA-Unikaryonidae-Encephalitozoon_intestinalis_XP_003072765.1
Viruses-NA-NA-NA-NA-Beihai_sea_slater_virus_2_YP_009333571.1
Bacteria-Aquificae-Aquificae-Aquificales-Hydrogenothermaceae-Persephonella_hydrogeniphila_WP_097000751.1
Bacteria-Aquificae-Aquificae-Desulfurobacteriales-Desulfurobacteriaceae-Thermovibrio_ammonificans_WP_013536892.1
Bacteria-Synergistetes-Synergistia-Synergistales-Synergistaceae-Cloacibacillus_sp._An23_WP_087364790.1
Bacteria-Caldiserica-Caldisericia-Caldisericales-Caldisericaceae-Caldisericum_exile_WP_014453845.1
Bacteria-Verrucomicrobia-NA-NA-NA-NA_WP_019113811.1
Bacteria-Verrucomicrobia-Verrucomicrobiae-Verrucomicrobiales-Verrucomicrobiaceae-Haloferula_sp._BvORR071_WP_035609042.1
Bacteria-Cyanobacteria-NA-Synechococcales-Prochloraceae-Prochlorococcus_sp._MIT_0601_WP_036901363.1
Bacteria-Cyanobacteria-NA-Synechococcales-Synechococcaceae-Synechococcus_sp._NIES970_WP_096418915.1
Bacteria-Lentisphaerae-Lentisphaeria-Victivallales-Victivallaceae-Victivallis_vadensis_WP_116882549.1
Bacteria-Balneolaeota-Balneolia-Balneolales-Balneolaceae-Aliifodinibius_sp._ECH52_WP_138432074.1
Bacteria-Balneolaeota-Balneolia-Balneolales-Balneolaceae-Gracilimonas_mengyeensis_WP_142454827.1
Bacteria-Balneolaeota-Balneolia-Balneolales-Balneolaceae-Balneola_vulgaris_WP_018127192.1
Bacteria-Rhodothermaeota-Rhodothermia-Rhodothermales-Salinibacteraceae-Salinivenus_lutea_WP_103005986.1
Bacteria-NA-NA-NA-NA-bacterium_J102018_WP_121697948.1
Bacteria-Nitrospirae-Nitrospira-Nitrospirales-Nitrospiraceae-Thermodesulfovibrio_thiophilus_WP_028844955.1
Bacteria-Kiritimatiellaeota-Kiritimatiellae-Kiritimatiellales-NA-Kiritimatiellales_bacterium_WP_136064146.1
Bacteria-Kiritimatiellaeota-Kiritimatiellae-Kiritimatiellales-NA-Kiritimatiellales_bacterium_WP_136080555.1
Bacteria-Firmicutes-Tissierellia-Tissierellales-Peptoniphilaceae-Peptoniphilus_harei_WP_005955842.1
Bacteria-Firmicutes-Tissierellia-Tissierellales-Tissierellaceae-Tissierella_creatinini_WP_136712640.1
Bacteria-Spirochaetes-Spirochaetia-Brachyspirales-Brachyspiraceae-Brachyspira_aalborgi_WP_147558892.1
Bacteria-Spirochaetes-Spirochaetia-Brachyspirales-Brachyspiraceae-Brachyspira_hampsonii_WP_008723928.1
Bacteria-Firmicutes-Clostridia-Clostridiales-Catabacteriaceae-Catabacter_hongkongensis_WP_046443094.1
Bacteria-Firmicutes-Clostridia-Clostridiales-Christensenellaceae-Christensenella_massiliensis_WP_079547260.1
Bacteria-Fusobacteria-Fusobacteriia-Fusobacteriales-Fusobacteriaceae-Fusobacterium_perfoetens_WP_027127857.1
Bacteria-Fusobacteria-Fusobacteriia-Fusobacteriales-Fusobacteriaceae-Fusobacterium_russii_WP_026339017.1
Bacteria-Fusobacteria-Fusobacteriia-Fusobacteriales-Fusobacteriaceae-NA_WP_114642054.1
Bacteria-Fibrobacteres-Fibrobacteria-Fibrobacterales-Fibrobacteraceae-Fibrobacter_sp._UWOS_WP_073305070.1
Bacteria-Chrysiogenetes-Chrysiogenetes-Chrysiogenales-Chrysiogenaceae-Chrysiogenes_arsenatis_WP_027389567.1
Bacteria-Chrysiogenetes-Chrysiogenetes-Chrysiogenales-Chrysiogenaceae-Desulfurispirillum_indicum_WP_013505182.1
Bacteria-NA-NA-NA-NA-NA_WP_135892872.1
Bacteria-Proteobacteria-Gammaproteobacteria-Xanthomonadales-Rhodanobacteraceae-Oleiagrimonas_sp._MCCC_1A03011_WP_113063852.1
Bacteria-Verrucomicrobia-Opitutae-Opitutales-Opitutaceae-Opitutus_terrae_WP_012376459.1
Bacteria-Proteobacteria-Alphaproteobacteria-Sphingomonadales-Sphingomonadaceae-Sphingorhabdus_sp._EL138_WP_0…7518.1
Bacteria-Chlamydiae-Chlamydiia-Parachlamydiales-Parachlamydiaceae-Candidatus_Protochlamydia_amoebophila_WP_011174635.1
Bacteria-Chlamydiae-Chlamydiia-Parachlamydiales-Waddliaceae-Waddlia_chondrophila_WP_013181184.1
Bacteria-Planctomycetes-NA-NA-NA-Planctomycetes_bacterium_FF011L_WP_145351151.1
Bacteria-Planctomycetes-Planctomycetia-Planctomycetales-Planctomycetaceae-NA_WP_105332549.1
Bacteria-Planctomycetes-NA-NA-NA-Planctomycetes_bacterium_SV_7m_r_WP_145276040.1
Bacteria-Deferribacteres-Deferribacteres-Deferribacterales-Deferribacteraceae-Denitrovibrio_acetiphilus_WP_013009411.1
Bacteria-Tenericutes-Mollicutes-Entomoplasmatales-Spiroplasmataceae-Spiroplasma_apis_WP_023789187.1
Bacteria-Tenericutes-Mollicutes-Entomoplasmatales-Spiroplasmataceae-Spiroplasma_gladiatoris_WP_134297418.1
Bacteria-Thermotogae-Thermotogae-Mesoaciditogales-Mesoaciditogaceae-Mesoaciditoga_lauensis_WP_036223229.1
Bacteria-Thermotogae-Thermotogae-Petrotogales-Petrotogaceae-Geotoga_petraea_WP_091402639.1
Bacteria-Thermotogae-Thermotogae-Thermotogales-Fervidobacteriaceae-Thermosipho_africanus_WP_012579562.1
Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Haloarculaceae-Halorhabdus_tiamatea_WP_008527730.1
Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Halostella_sp._DLLS108_WP_135821158.1
Archaea-NA-NA-NA-NA-archaeon_AArcSl_WP_119817192.1
Archaea-Euryarchaeota-Methanomicrobia-Methanosarcinales-Methanosarcinaceae-Methanococcoides_sp._NM1_WP_135605030.1
Archaea-Euryarchaeota-Methanopyri-Methanopyrales-Methanopyraceae-Methanopyrus_sp._SNP6_WP_148688233.1
Archaea-Thaumarchaeota-Nitrososphaeria-CandidatusNitrosocaldales-CandidatusNitrosocaldaceae-NA_WP_103287205.1
Archaea-Thaumarchaeota-Nitrososphaeria-Nitrososphaerales-Nitrososphaeraceae-Nitrososphaera_viennensis_WP_075054568.1
Archaea-NA-NA-NA-NA-anaerobic_archaeon_MKD1_WP_147663824.1
Archaea-Crenarchaeota-Thermoprotei-Desulfurococcales-Desulfurococcaceae-Aeropyrum_pernix_WP_010866187.1
Archaea-CandidatusKorarchaeota-NA-NA-NA-Candidatus_Korarchaeum_cryptofilum_WP_125741714.1
Archaea-Crenarchaeota-Thermoprotei-Sulfolobales-Sulfolobaceae-Sulfolobus_acidocaldarius_WP_011277718.1
Archaea-Crenarchaeota-Thermoprotei-Desulfurococcales-Pyrodictiaceae-Pyrodictium_delaneyi_WP_055407328.1
Archaea-CandidatusBathyarchaeota-NA-NA-NA-Candidatus_Bathyarchaeota_archaeon_WP_116595988.1
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