Eukarvota-Amoebozoa-NA-NA-Paramoebidae-Neoparamoeba aestuarina\_MMETSP0161\_c17062\_g1\_i1.p1 Paulinella\_ovalis\_nuclear\_SingleCell\_\_\_SAG1\_utg7180000016368.g7508.t1 BS: ultrafast bootstrap support Eukaryota-Euglenida-NA-Eutreptiales-NA-Eutreptiella\_gymnastica-like\_MMETSP0811\_c64076\_g1\_i1.p2 — Bacteria-Acidobacteria-Acidobacteriia-Acidobacteriales-Acidobacteriaceae-Acidobacterium\_ailaaui\_WP\_026442107.1 cteria-Acidobacteria-Acidobacteriia-Bryobacterales-Solibacteraceae-Candidatus\_Solibacter\_usitatus\_WP\_011689374.1 Bacteria-Actinobacteria-Coriobacteriia-Coriobacteriales-Coriobacteriaceae-Olegusella\_massiliensis\_WP\_021734979.1 Bacteria-Cyanobacteria-NA-NA-NA-filamentous\_cyanobacterium\_CCP3\_WP\_106921325.1 Bacteria-Cyanobacteria-NA-Synechococcales-Prochlorotrichaceae-Nodosilinea\_nodulosa\_WP\_017300916.1 ria-Cyanobacteria-NA-Synechococcales-Synechococcaceae-NA\_WP\_011243548.1 — Bacteria-CandidatusCryosericota-CandidatusCryosericia-CandidatusCryosericales-CandidatusCryosericaceae-Candidatus\_Cryosericum\_terrychapinii\_WP\_119088395.1 Bacteria-Aquificae-Aquificae-Aquificales-Hydrogenothermaceae-Hydrogenothermus\_marinus\_WP\_121922686.1 ——— 100 Bacteria-Aquificae-Aquificae-Aquificales-Hydrogenothermaceae-Persephonella\_hydrogeniphila\_WP\_096999967.1 Bacteria-Aquificae-Aquificae-Aquificales-Hydrogenothermaceae-Sulfurihydrogenibium\_azorense\_WP\_012674431.1 Bacteria-Bacteroidetes-Chitinophagia-Chitinophagales-Chitinophagaceae-Arachidicoccus\_sp.\_B310\_WP\_131328642.1 Bacteria-Bacteroidetes-Chitinophagia-Chitinophagales-Chitinophagaceae-Filimonas\_sp.\_TTM71\_WP\_129005324.1
Bacteria-Bacteroidetes-Chitinophagia-Chitinophagales-Chitinophagaceae-Panacibacter\_ginsenosidivorans\_WP\_147189103.1 Bacteria-Chlorobi-Chlorobia-Chlorobiales-Chlorobiaceae-Prosthecochloris\_sp.\_ZM\_2\_WP\_114607598.1 —— Bacteria-Ignavibacteriae-Ignavibacteria-Ignavibacteriales-Ignavibacteriaceae-Ignavibacterium\_album\_WP\_014559244.1 — Bacteria-Ignavibacteriae-Ignavibacteria-Ignavibacteriales-Melioribacteraceae-Melioribacter\_roseus\_WP\_014856411.1 Bacteria-Fusobacteria-Fusobacteriia-Fusobacteriales-Leptotrichiaceae-Sebaldella\_termitidis\_WP\_012860061.1 Bacteria-Thermotogae-Thermotogales-Thermotogaceae-NA\_WP\_038033213.1

Bacteria-Thermotogae-Thermotogae-Thermotogales-Thermotogaceae-Thermotogaceae-Thermotogaceae-Pseudothermotoga\_elfii\_WP\_028843339.1 Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Bacillus\_firmus\_WP\_061792180.1 nicutes-Bacilli-Bacillales-Planococcaceae-Sporosarcina\_globispora\_WP\_053433009.1 Bacteria-Firmicutes-Bacilli-Bacillales-Paenibacillaceae-Paenibacillus\_sp.\_FSL\_R50490\_WP\_076263262.1 —— Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Domibacillus\_indicus\_WP\_046175756.1 Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Bacillus\_sp.\_F56\_WP\_069840058.1 teria-Firmicutes-Bacilli-Bacillales-Bacillaceae-NA\_WP\_014663076.1 Bacteria-Firmicutes-Bacilli-Bacillales-NA-NA\_WP\_003233916.1 Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-NA\_WP\_103750410.1 ——— Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Salinibacillus\_kushneri\_WP\_093137624.1 ——— Bacteria-Firmicutes-Bacilli-NA-NA-NA\_WP\_047185477.1 —— Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Salipaludibacillus\_agaradhaerens\_WP\_078577788.1 Bacteria-Firmicutes-Bacilli-Bacillales-Sporolactobacillaceae-Tuberibacillus\_sp.\_MarseilleP3662\_WP\_085521066.1 —— Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Geobacillus\_sp.\_C56T3\_WP\_013144142.1 ——————Bacteria-Firmicutes-Bacilli-Lactobacillales-Carnobacteriaceae-Trichococcus\_alkaliphilus\_WP\_106449273.1 Bacteria-Firmicutes-Bacilli-Lactobacillales-Streptococcaceae-Lactococcus\_sp.\_1JSPR7\_WP\_120773388.1 —— Bacteria-Firmicutes-Bacilli-Bacillales-Bacillaceae-Lysinibacillus\_meyeri\_WP\_107838095.1 Bacteria-Firmicutes-Bacilli-Bacillales-Planococcaceae-NA\_WP\_101189866.1 Bacteria-Firmicutes-Bacilli-Bacillales-Planococcaceae-Planococcus\_citreus\_WP\_121301254.1 ——— Bacteria-Firmicutes-Clostridia-Natranaerobiales-Natranaerobiaceae-Natranaerobius\_trueperi\_WP\_089022539.1 —— Bacteria-CandidatusTectomicrobia-NA-NA-NA-Candidatus\_Entotheonella\_palauensis\_WP\_034413686.1 — Bacteria-Chloroflexi-Chloroflexia-Chloroflexales-Chloroflexaceae-Chloroflexus\_sp.\_MSG\_WP\_081910065.1 ——— Bacteria-Chloroflexi-Thermomicrobia-Sphaerobacterales-Sphaerobacteraceae-Nitrolancea\_hollandica\_WP\_008482009.1 Bacteria-Chloroflexi-Thermomicrobia-Sphaerobacterales-Sphaerobacteraceae-Sphaerobacter\_thermophilus\_WP\_012871423.1 Bacteria-Verrucomicrobia-Spartobacteria-Chthoniobacterales-Chthoniobacteraceae-Chthoniobacter\_flavus\_WP\_083805408.1 Bacteria-CandidatusMarinimicrobia-NA-NA-NA-Candidatus\_Marinimicrobia\_bacterium\_WP\_129277823.1 — Bacteria-Proteobacteria-Deltaproteobacteria-Desulfurellales-Desulfurellaceae-Hippea\_alviniae\_WP\_022670097.1 — Bacteria-NA-NA-NA-NA-bacterium\_M00.F.Ca.ET.230.01.1.1\_WP\_135888667.1 aryota-Cryptophyta-NA-Cryptomonadales-Hemiselmidaceae-Hemiselmis\_andersenii\_MMETSP0043\_c26947\_g1\_i1.p1 Bacteria-Proteobacteria-Betaproteobacteria-Neisseriales-Chromobacteriaceae-Paludibacterium\_purpuratum\_WP\_133681305.1 Bacteria-Proteobacteria-Betaproteobacteria-Neisseriales-Neisseriaceae-Eikenella\_corrodens\_WP\_081253962.1 ————— Bacteria-Proteobacteria-Betaproteobacteria-Neisseriales-Neisseriaceae-Kingella\_oralis\_WP\_003793336.1 Bacteria-Proteobacteria-Betaproteobacteria-Neisseriales-Neisseriaceae-Morococcus\_cerebrosus\_WP\_039406562.1 Bacteria-Proteobacteria-Betaproteobacteria-Neisseriales-Neisseriaceae-NA\_WP\_009311840.1 pacteria-Gammaproteobacteria-Aeromonadales-Aeromonadaceae-Aeromonas\_bivalvium\_WP\_041993500.1 eria-Proteobacteria-Gammaproteobacteria-Aeromonadales-Aeromonadaceae-NA\_WP\_111873804.1 —— Bacteria-Proteobacteria-Gammaproteobacteria-Vibrionales-Vibrionaceae-Photobacterium\_galatheae\_WP\_036748401.1 Eukaryota-Arthropoda-Insecta-Lepidoptera-Plutellidae-Plutella\_xylostella\_XP\_011567333.1 Paulinella\_chromatophora\_CCAC0185\_nuclear\_\_\_scaffold3406-m34888 — Paulinella\_ovalis\_nuclear\_SingleCell\_\_\_SAG6\_contig00155.g226.t1 Viruses-Siphoviridae-NA-NA-NA-Klebsiella\_virus\_IME260\_YP\_009597479.1 Viruses-Iridoviridae-NA-NA-NA-Invertebrate\_iridescent\_virus\_22\_YP\_009010927.1 Viruses-Iridoviridae-NA-NA-NA-Invertebrate\_iridescent\_virus\_31\_YP\_009046724.1 Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Lotharella\_amoebiformis\_MMETSP0042\_c19466\_g1\_i1.p1 ——— Bacteria-Actinobacteria-Actinobacteria-Corynebacteriales-Mycobacteriaceae-Mycobacterium\_sp.\_KBS0706\_WP\_138891111. - Bacteria-Proteobacteria-Alphaproteobacteria-NA-NA-Micavibrio\_aeruginosavorus\_WP\_014103419.1 Bacteria-Proteobacteria-Alphaproteobacteria-Rhodospirillales-Rhodospirillaceae-Nisaea\_denitrificans\_WP\_028465849.1 —— Bacteria-Proteobacteria-Alphaproteobacteria-Rhodospirillales-Rhodospirillaceae-Aestuariispira\_insulae\_WP\_115935204.1 — Bacteria-Proteobacteria-Alphaproteobacteria-Rhodospirillales-Rhodospirillaceae-Rhodospirillaceae\_bacterium\_R148\_WP\_142899629.1 Bacteria-NA-NA-NA-NA-bacterium\_A52C2\_WP\_092496146.1 Bacteria-Proteobacteria-Alphaproteobacteria-Rhizobiales-Hyphomicrobiaceae-Devosia\_epidermidihirudinis\_WP\_046140646.1 Bacteria-Proteobacteria-Alphaproteobacteria-NA-NA\_WP\_116492250.1 Bacteria-Proteobacteria-Alphaproteobacteria-Rhodobacterales-Hyphomonadaceae-Henriciella\_barbarensis\_WP\_119380570.1 ———— NA-NA-NA-NA-NA\_WP\_040061129.1 yota-Stramenopiles-Raphidophyceae-Chattonellales-Chattonellaceae-Chattonella\_subsalsa\_MMETSP0950\_c14035\_g1\_i1.p1 Eukaryota-Cercozoa-Chlorarachniophyceae-NA-NA-Bigelowiella\_natans\_MMETSP1055\_c38246\_g1\_i1.p1 Archaea-NA-NA-NA-archaeon\_AArcSI\_WP\_119821192.1 ————— Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Haladaptatus\_sp.\_R4\_WP\_066140696.1
—————— Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Halobacteriaceae-Halorussus\_sp.\_DLLS82\_WP\_134668540.1 Archaea-Euryarchaeota-Halobacteria-Natrialbales-Natrialbaceae-Natronococcus\_occultus\_WP\_015322998.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Haloarculaceae-Natronomonas\_sp.\_F20122\_WP\_137277307.1 Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Haloarculaceae-Haloarcula\_sp.\_Atlit120R\_WP\_121536227.1 ——— Archaea-Euryarchaeota-Halobacteria-Halobacteriales-Haloarculaceae-Halorientalis\_persicus\_WP\_092658021.1