Bacteria; Methylomirabilota; Methylomirabilia; Rokubacteriales; CSP1-6; AR5; AR5 sp003220265 Bacteria; Methylomirabilota; Methylomirabilia; Rokubacteriales; CSP1-6; CSP1-6; CSP1-6 sp001443385 Bacteria; Nitrospirota; Nitrospiria; Nitrospirales; NS-4; SCTG01; SCTG01 sp004298335 — Bacteria; Nitrospirota; Thermodesulfovibrionia; Thermodesulfovibrionales; UBA1546; UBA1546 sp003599795 Bacteria; Nitrospirota; Thermodesulfovibrionia; UBA6902; UBA6902 Bacteria; Omnitrophota; Koll11; 2–02–FULL–51–18; 2–02–FULL–51–18; JACPAX01; JACPAX01 sp016180585 Bacteria; Omnitrophota; Koll11; GIF10; UBA6249 —— Bacteria; Omnitrophota; Koll11; 2–01–FULL–45–10; 2–01–FULL–45–10; CAIMPC01; CAIMPC01 sp903843285 Bacteria; Omnitrophota; Koll11; UBA6215; UBA6215; 2-02-FULL-50-19 Bacteria; Omnitrophota; Omnitrophia; Omnitrophales; 01–FULL–45–10b; 2–01–FULL–50–24; 2–01–FULL–50–24 sp001804225 Bacteria; Desulfobacterota\_E; MBNT15; MBNT15; MBNT15; CG2-30-66-27; CG2-30-66-27 sp007280195 Bacteria; Desulfobacterota; GWC2-55-46; GWC2-55-46; GWC2-55-46 Bacteria; Acidobacteriota; Mor1; Gp22–AA2; Gp22–AA3; Gp22–AA3 sp016177515 Bacteria; Margulisbacteria; WOR-1; O2-12-FULL-45-9; XYB2-FULL-48-7; XYB2-FULL-45-9; XYB2-FULL-45-9 sp001771575 Bacteria; Firmicutes; Bacilli Bacteria; Gemmatimonadota; Gemmatimonadetes; Gemmatimonadales Bacteria; Proteobacteria; Gammaproteobacteria; Burkholderiales; Burkholderiaceae; Hylemonella Bacteria; Proteobacteria; Gammaproteobacteria; Burkholderiales; Burkholderiaceae; Polaromonas Bacteria; Proteobacteria; Gammaproteobacteria; Burkholderiales; Burkholderiaceae; Aquabacterium Bacteria; Proteobacteria; Gammaproteobacteria; Burkholderiales; Gallionellaceae Bacteria; Proteobacteria; Gammaproteobacteria; Burkholderiales Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales; Moraxellaceae; Acinetobacter Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales; Moraxellaceae; Acinetobacter Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales; Porticoccaceae; JAGPUQ01; JAGPUQ01 sp016191205 Bacteria; Proteobacteria; Gammaproteobacteria; Pseudomonadales; Pseudomonadaceae; Pseudomonas\_E Bacteria; Proteobacteria; Gammaproteobacteria; Acidiferrobacterales; Sulfurifustaceae; SCRL01; SCRL01 sp004298065 — Bacteria; Proteobacteria; Gammaproteobacteria Bacteria; Bacteroidota; Bacteroidia; Chitinophagales; Chitinophagaceae Bacteria; Patescibacteria; Gracil Bacteria; Patescibacteria; Paceibacteria; UBA9983; UBA9983 Bacteria; Patescibacteria; Paceibacteria; UBA9983; JACRO Bacteria; Patescibacteria; Paceibacteria; UBA10092; UBA10092; UBA10092; UBA10092 sp003455995 Bacteria; Patescibacteria; ABY1; BM507; UBA12075; XYA2-FULL-47-19; XYA2-FULL-47-19 sp001780275 Bacteria; Patescibacteria; ABY1 Bacteria; Patescibacteria; ABY1; SG8-24 Bacteria; Patescibacteria 0.2

**Evolutionary Distance**