

,Betaproteobacteriales(319)

,JTB23,Methylococcales(2)

,Alteromonadales(42)

,Vibrionales(18)

,Aeromonadales(3)

,Oceanospirillales(21)

,Thiomicrospirales(3)

,K189A clade(1)

,Oceanospirillales(1)

,Cellvibrionales(59)

,Pseudomonadales(10)

,Oceanospirillales(18)

,Francisellales(4)

,Salinisphaerales(1)

,Gammaproteobacteria Incertae Sedis(2)

,Thiotrichales(3)

,Rhodobacterales(198)

,Rhizobiales(1)

,Micropepsales(3)

,Rhizobiales(2)

,Sphingomonadales(39)

,SAR11 clade(92)

,Parvibaculales(7)

,Acetobacterales(4)

,Puniceispirillales(30)

,Thalassobaculales,Reyranellales,uncultured(3)

,Campylobacterales(15)

,Myxococcales(1)

,Leptospirales,Fusobacteriales,Bradymonadales(5)

,Flavobacteriales(301)

,Sphingobacteriales(58)

,Bacteroidetes VC2.1 Bac22(2)

,Chitinophagales(65)

,Cytophagales(30)

,Verrucomicrobiales(26)

,Chthoniobacteriales(9)

,Pedosphaerales(13)

,Opitutales(21)

,Omnitrophales,uncultured(12)

,Planctomycetales(4)

,unidentified planctomycete,uncultured Crater Lake bacterium CL500–15(2)

,uncultured bacterium,metagenome(2)

,Nitrospirales(2)

,Frankiales(77)

,PeM15(11)

,Micrococcales(34)

,Corynebacteriales(12)

,Microtrichales(21)

,Solirubrobacteriales,Gaiellales(6)

,Acholeplasmatales,Bacillales(2)

,Synechococcales(42)

,Pseudanabaenales(1)

,Lineage IV,Fimbriimonadales,Armatimonadales,Saccharimonadales,Chloroflexales(7)

,Marine Group II(5)

