

,Limnohabitans(59)

,Rhodoferax(16)

,Candidatus Symbiobacter(3)

,uncultured(1)

,Polaromonas(7)

,Acidovorax(16)

,Tibeticola,Brachymonas(2)

,Diaphrobacter(1)

,RS62 marine group(9)

,Ramilbacter,Ottowia(2)

,uncultured(3)

,Aquabacterium,Piscinibacter,Rhizobacter,uncultured,Curvibacter(8)

,Leptothrix(6)

,AAP99,Tepidimonas,uncultured,Inhella,Roseateles,Pelomonas,Ideoneilla(9)

ronia-Paraburkholderia,MWH-UniP1 aquatic group,uncultured,Kerstesia,GKS98 freshwater group(13)

,Limnobacter(1)

,Polynucleobacter(49)

,Massilia(4)

,Undibacterium(1)

,uncultured(3)

,Tepidiphilus(1)

,GOUTA6(2)

,uncultured beta proteobacterium,MND1(2)

,OM43 clade(19)

,Candidatus Methylopusillus(11)

,Methylothera(21)

,Methylothera(2)

,uncultured(6)

,MM2(2)

,Thaueria(1)

,Vogesella,C39,Zoogloea,Uliginosibacterium(5)

,Arenimonas,Dechloromonas(3)

,uncultured gamma proteobacterium,Cycloclasticus(2)

,Paraglaciicola,Glaciicola(18)

,Alteromonas(5)

,Colwellia(5)

,Colwellia(3)

,Pseudoalteromonas,Motilimonas,Psychromonas,Thalassotalea(8)

,Psychrosphaera(1)

,Vibrio(14)

,Vibrio,Enterovibrio,Photobacterium(3)

,Pantoea(1)

,Aeromonas(3)

,Oceanospirillum(1)

,Neptunomonas(4)

,Marinomonas(4)

,Oceanobacter(1)

,Oleispira(1)

,uncultured bacterium,uncultured marine bacterium(2)

,uncultured marine bacterium,marine metagenome,uncultured bacterium(6)

,SUP05 cluster(3)

,Litoricola(10)

,marine gamma proteobacterium HTCC2089,uncultured bacterium(2)

,uncultured(7)

,Oleiphilus(4)

,uncultured marine bacterium(1)

,Halioglobus(2)

,Halioglobus(5)

,OM60(NOR5) clade(8)

,Pseudohalaea(1)

,OM60(NOR5) clade(1)

,uncultured(1)

,SAR92 clade(17)

,C1-B045(2)

,uncultured(1)

,Cellvibrio(1)

,Alkanindiges(2)

,metagenome,Fluvicoccus,[Agitococcus] lubricus group(4)

,Pseudohongiella(14)

,Blyi10(3)

,Pseudomonas(5)

,[Caedibacter] taeniospiralis group,Francisella(4)

,uncultured gamma proteobacterium(1)

,Nevskia(1)

,Arenicella(1)

,Methylobacter,Marinicella(5)

,Crenothrix(3)

,pLW-20,Methylomonas(2)

,uncultured(1)

,Planktomarina(81)

,Octadecabacter(3)

,uncultured(3)

,uncultured(6)

,Pseudopelagicola(1)

,Roseobacter clade NAC11-7 lineage,Amylibacter(7)

,uncultured(1)

,Sulfitobacter(29)

,Sulfitobacter,Roseobacter(6)

,Tropicibacter,Salinihabitans,Litorimicrobium(3)

,Tateyamarina(1)

,Loktanela(7)

,Phaeobacter,Leisingera,Seohaericola,Ketogulonicigenium,uncultured(7)

,Roseovarius(1)

,Marinibacterium(1)

,Cereibacter(1)

,Tabrizicola(2)

,Rhodobacter,uncultured(5)

,Albirhodobacter,Pseudorhodobacter(3)

,uncultured(1)

,uncultured(1)

,Hirschia(1)

,Maricaulis(1)

,Caulobacter(4)

,Phenylobacterium,Brevundimonas(7)

,Methylosula(3)

,Xanthobacter,Bradyrhizobium,Methylocystis(3)

,uncultured,Ancyllobacter(3)

,Hyphomicrobium,Pedomicrobium(2)

,Novosphingobium(13)

,Erythrobacter(4)

,Novosphingobium(1)

,Sphingorhabdus(9)

,Sphingomonas(6)

,Sandarakinorhabdus(1)

,Clade Ia(70)

,uncultured(2)

,uncultured bacterium(1)

,uncultured Pelagibacterales bacterium(1)

,uncultured Pelagibacterales bacterium,uncultured bacterium(8)

,uncultured bacterium(3)

,uncultured alpha proteobacterium(1)

,marine metagenome(1)

,uncultured marine bacterium(1)

,uncultured bacterium,marine metagenome(4)

,uncultured(2)

,uncultured bacterium(1)

,uncultured bacterium(6)

,uncultured bacterium(2)

,uncultured bacterium(1)

,uncultured bacterium(1)

,uncultured alpha proteobacterium,uncultured bacterium,uncultured marine bacterium(6)

,uncultured bacterium(1)

,Candidatus Megaira(3)

,uncultured(1)

,uncultured bacterium,uncultured,Azospirillum(4)

,Arcobacter(12)

,Sulfrimonas,Sulfurovum(2)

,OM27 clade,Sulfuricurvum(8)

,Peredibacter(3)

,uncultured proteobacterium(1)

,hydrothermal vent metagenome,uncultured SAR324 cluster bacterium(2)

,Desulfuromonas,uncultured bacterium(3)

,Fusobacterium(1)

,Polaribacter 1(4)

,Polaribacter,Polaribacter 2,Polaribacter 3(10)

,Polaribacter 3(2)

,Polaribacter,Polaribacter 4(3)

,Tenacibaculum,Aurantivirga,[Polaribacter] huanghezhanensis,Polaribacter 4(7)

,Flavicella(2)

,Lutimonas(1)

,NS5 marine group(21)

,Algibacter,Aquibacter,NS4 marine group(12)

,Mesoflavibacter(1)

,Hoppeia,Psychroserpens(2)

,NS2b marine group,Arcticiflavibacter(2)

,Flavobacterium(71)

,Candidatus(2)

,uncultured(5)

,Pseudofulvibacter(1)

,NS3a marine group(16)

,uncultured(2)

,uncultured(1)

,Ulvibacter(7)

,uncultured(30)

,Phaeocystidibacter(1)

,uncultured(7)

eroidetes/Chlorobi group bacterium,uncultured marine bacterium,uncultured Bacteroidetes bacterium(5)

,uncultured marine bacterium,uncultured Flavobacterium sp.(2)

,uncultured bacterium,uncultured Flavobacteriales bacterium(3)

,NS10 marine group,uncultured bacterium,uncultured marine bacterium,seawater metagenome(6)

,Fluviicola(40)

,Saliniirepens(2)

,uncultured Bacteroidetes/Chlorobi group bacterium(1)

,seawater metagenome(1)

,uncultured bacterium,uncultured Flexibacteraceae bacterium(4)

,uncultured bacterium(2)

,uncultured Bacteroidetes bacterium(3)

,uncultured bacterium,metagenome(4)

,uncultured Bacteroidetes bacterium,uncultured bacterium(3)

,Pedobacter(4)

,Solitalea(2)

,uncultured Bacteroidetes bacterium(1)

,metagenome,uncultured Bacteroidetes bacterium,uncultured bacterium(18)

,uncultured Sphingobacteria bacterium,uncultured bacterium,metagenome(5)

,Paludibacter,uncultured,WCHB1-32(3)

,bacterium enrichment culture clone AOM-SR-B35(1)

,Sediminibacterium(24)

,Dinghuibacter,uncultured(13)

,uncultured(2)

,Ferruginibacter(8)

,uncultured bacterium,uncultured(6)

,Lewinella(4)

,Candidatus Aquistes(2)

,Aureispira(2)

,Pseudarcicella(10)

,Arcipella(3)

,Emicicia(3)

,Cytophaga,Algoriphagus,uncultured,OLB12(6)

,uncultured(1)

,Ekhidna(1)

,uncultured,uncultured bacterium,Balneola(4)

,Persicirhabdus(5)

,Roseibacillus,Rubritalea(3)

,Luteolibacter(7)

,Prostheobacter(8)

,Cthoniobacter(4)

,FukuN18 freshwater group(1)

,uncultured Verrucomicrobia bacterium,uncultured bacterium(2)

,SCGC AAA164-E04(1)

,uncultured Crater Lake bacterium CL120-133,metagenome,uncultured Verrucomicrobia bacterium(22)

,Lentimonas(3)

,MB11C04 marine group(2)

rophus,uncultured bacterium,uncultured Opitutae bacterium,uncultured Verrucomicrobia bacterium(12)

,Rubripirellula,Blastopirellula(2)

,uncultured(2)

,uncultured(6)

,CL500-3(6)

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

,uncultured marine bacterium(4)

,uncultured bacterium,metagenome(2)

,marine group(3)

,Nitrospira(2)

,hgcl clade(18)

,uncultured bacterium(2)

,hgcl clade(11)

,uncultured bacterium,hgcl clade,metagenome(11)

,hgcl clade(31)

,uncultured bacterium(3)

,uncultured bacterium(1)

,metagenome(2)

,Candidatus Flaviiluna,Rhodoluna,uncultured bacterium,uncultured Actinomycetales bacterium(11)

,Candidatus Limnoluna(1)

,Candidatus Planktoluna(7)

,uncultured(1)

,Aurantimicrobium(5)

,Salinibacterium(1)

,Mycobacterium,Galbitalaea,Cryobacterium(14)

,CL500-29 marine group(14)

,IMCC26207,Sva0996 marine group(4)

,uncultured bacterium,Actinobacteria bacterium IMCC26256,uncultured actinobacterium(7)

,Candidatus Actinomarina(4)

,metagenome(1)

,Fusibacter(2)

,Trichococcus,Clostridium sensu stricto 13(2)

,Synechococcus CC9902,Acholeplasma,Exiguobacterium(27)

,Cyanobium PCC-6307(17)

,Atelocyanobacterium (UCYN-A)(1)

,Doliclosperrum NIES41(1)

,Pseudanabaena PCC-7429(1)

,uncultured(1)

,Candidatus Nitrosopumilus(6)

,Candidatus Nitrosopelagicus,uncultured archaeon(2)

,uncultured marine archaeon,uncultured archaeon(2)

