**Supplementary Data**

**Bacteria associated with ovine gut parasites *Trichuris ovis* and *Haemonchus contortus***

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**Table S1. Summary of Raw sequence data and quality**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample ID | No. of Reads | GC % | Read length | %Q25 |
| HAE1 | 189158 | 54 | 301 | 99.16 |
| HAE2 | 252108 | 54.5 | 301 | 99.24 |
| HAE3 | 378082 | 52 | 301 | 98.94 |
| HAE4 | 196572 | 51.3 | 301 | 97.36 |
| HAE5 | 412338 | 52.8 | 301 | 98.21 |
| TRI1 | 543694 | 53.1 | 301 | 97 |
| TRI2 | 283396 | 51 | 301 | 96.50 |
| TRI3 | 745219 | 54.8 | 301 | 98.63 |
| TRI4 | 633250 | 53.7 | 301 | 98.12 |
| TRI5 | 446135 | 53 | 301 | 98 |

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| --- | --- | --- | --- | --- | --- | --- |
|  | Table S2. OTU Table; showing bacterial taxa found in *Haemonchus contortus* and *Trichuris ovis* | | | | |  |
| S.No. | OTUID | Phylum | Class | Order | Family | Genus |
| 1 | Otu0001 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_unclassified* |
| 2 | Otu0002 | Bacteroidota | Bacteroidia | Bacteroidales | Bacteroidales\_unclassified | *Bacteroidales\_unclassified* |
| 3 | Otu0003 | Verrucomicrobiota | Kiritimatiellae | WCHB1-41 | WCHB1-41\_fa | *WCHB1-41\_ge* |
| 4 | Otu0004 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Prevotella* |
| 5 | Otu0005 | Bacteroidota | Bacteroidia | Bacteroidales | Rikenellaceae | *Rikenellaceae\_RC9\_gut\_group* |
| 6 | Otu0006 | Firmicutes | Clostridia | Clostridia\_unclassified | Clostridia\_unclassified | *Clostridia\_unclassified* |
| 7 | Otu0007 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Prevotellaceae\_unclassified* |
| 8 | Otu0008 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *UCG-005* |
| 9 | Otu0009 | Bacteroidota | Bacteroidia | Bacteroidales | Bacteroidaceae | *Bacteroides* |
| 10 | Otu0010 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Escherichia-Shigella* |
| 11 | Otu0011 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *Oscillospiraceae\_unclassified* |
| 12 | Otu0012 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Prevotellaceae\_UCG-003* |
| 13 | Otu0013 | Firmicutes | Clostridia | Oscillospirales | Oscillospirales\_unclassified | *Oscillospirales\_unclassified* |
| 14 | Otu0014 | Firmicutes | Firmicutes\_unclassified | Firmicutes\_unclassified | Firmicutes\_unclassified | *Firmicutes\_unclassified* |
| 15 | Otu0015 | Firmicutes | Clostridia | Christensenellales | Christensenellaceae | *Christensenellaceae\_R-7\_group* |
| 16 | Otu0016 | Bacteroidota | Bacteroidia | Bacteroidales | F082 | *F082\_ge* |
| 17 | Otu0017 | Firmicutes | Clostridia | Oscillospirales | UCG-010 | *UCG-010\_ge* |
| 18 | Otu0018 | Bacteroidota | Bacteroidia | Bacteroidia\_unclassified | Bacteroidia\_unclassified | *Bacteroidia\_unclassified* |
| 19 | Otu0019 | Spirochaetota | Spirochaetia | Spirochaetales | Spirochaetaceae | *Treponema* |
| 20 | Otu0020 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *NK4A214\_group* |
| 21 | Otu0021 | Bacteroidota | Bacteroidia | Bacteroidales | p-251-o5 | *p-251-o5\_ge* |
| 22 | Otu0022 | Bacteroidota | Bacteroidia | Bacteroidales | Muribaculaceae | *Muribaculaceae\_ge* |
| 23 | Otu0023 | Firmicutes | Clostridia | Oscillospirales | Oscillospirales\_fa | *Oscillospirales\_ge* |
| 24 | Otu0024 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Alloprevotella* |
| 25 | Otu0025 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *p-1088-a5\_gut\_group* |
| 26 | Otu0028 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacterales\_unclassified | *Enterobacterales\_unclassified* |
| 27 | Otu0029 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Prevotellaceae\_UCG-001* |
| 28 | Otu0030 | Actinobacteriota | Actinobacteria | Bifidobacteriales | Bifidobacteriaceae | *Aeriscardovia* |
| 29 | Otu0031 | Firmicutes | Negativicutes | Acidaminococcales | Acidaminococcaceae | *Succiniclasticum* |
| 30 | Otu0032 | Patescibacteria | Saccharimonadia | Saccharimonadales | Saccharimonadaceae | *Candidatus\_Saccharimonas* |
| 31 | Otu0033 | Fibrobacterota | Fibrobacteria | Fibrobacterales | Fibrobacteraceae | *Fibrobacter* |
| 32 | Otu0034 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Erysipelotrichaceae\_unclassified* |
| 33 | Otu0035 | Bacteroidota | Bacteroidia | Bacteroidales | Bacteroidales\_RF16\_group | *Bacteroidales\_RF16\_group\_ge* |
| 34 | Otu0038 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Enterobacteriaceae\_unclassified* |
| 35 | Otu0039 | Bacteroidota | Bacteroidia | Bacteroidales | Bacteroidales\_BS11\_gut\_group | *Bacteroidales\_BS11\_gut\_group\_ge* |
| 36 | Otu0040 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Ruminococcaceae\_unclassified* |
| 37 | Otu0041 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Prevotellaceae\_NK3B31\_group* |
| 38 | Otu0042 | Desulfobacterota | Desulfovibrionia | Desulfovibrionales | Desulfovibrionaceae | *Desulfovibrio* |
| 39 | Otu0043 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelatoclostridiaceae | *UCG-004* |
| 40 | Otu0044 | Proteobacteria | Gammaproteobacteria | Gammaproteobacteria\_unclassified | Gammaproteobacteria\_unclassified | *Gammaproteobacteria\_unclassified* |
| 41 | Otu0045 | Bacteroidota | Bacteroidia | Bacteroidales | Rikenellaceae | *Alistipes* |
| 42 | Otu0046 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Moryella* |
| 43 | Otu0047 | Verrucomicrobiota | Lentisphaeria | Victivallales | vadinBE97 | *vadinBE97\_ge* |
| 44 | Otu0048 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Ruminococcus* |
| 45 | Otu0050 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Moraxellaceae | *Acinetobacter* |
| 46 | Otu0051 | Bacteroidota | Bacteroidia | Bacteroidales | Paludibacteraceae | *uncultured* |
| 47 | Otu0052 | Proteobacteria | Gammaproteobacteria | Aeromonadales | Succinivibrionaceae | *Ruminobacter* |
| 48 | Otu0053 | Bacteroidota | Bacteroidia | Bacteroidales | Barnesiellaceae | *uncultured* |
| 49 | Otu0055 | Firmicutes | Clostridia | Clostridia\_UCG-014 | Clostridia\_UCG-014\_fa | *Clostridia\_UCG-014\_ge* |
| 50 | Otu0057 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *uncultured* |
| 51 | Otu0059 | Firmicutes | Clostridia | Monoglobales | Monoglobaceae | *Monoglobus* |
| 52 | Otu0060 | Bacteroidota | Bacteroidia | Bacteroidales | Rikenellaceae | *Rikenellaceae\_unclassified* |
| 53 | Otu0061 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *uncultured* |
| 54 | Otu0064 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Acetitomaculum* |
| 55 | Otu0065 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Anaerovoracaceae | *Family\_XIII\_AD3011\_group* |
| 56 | Otu0066 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Oxalobacteraceae | *Massilia* |
| 57 | Otu0067 | Firmicutes | Clostridia | Peptococcales | Peptococcaceae | *uncultured* |
| 58 | Otu0068 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelatoclostridiaceae | *Erysipelotrichaceae\_UCG-002* |
| 59 | Otu0070 | Firmicutes | Bacilli | Bacilli\_unclassified | Bacilli\_unclassified | *Bacilli\_unclassified* |
| 60 | Otu0071 | Actinobacteriota | Actinobacteria | Bifidobacteriales | Bifidobacteriaceae | *Bifidobacteriaceae\_unclassified* |
| 61 | Otu0072 | Desulfobacterota | Desulfovibrionia | Desulfovibrionales | Desulfovibrionaceae | *Mailhella* |
| 62 | Otu0073 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Erysipelotrichaceae\_UCG-009* |
| 63 | Otu0074 | Verrucomicrobiota | Lentisphaeria | Victivallales | Victivallaceae | *Victivallaceae\_ge* |
| 64 | Otu0075 | Chloroflexi | Anaerolineae | Anaerolineales | Anaerolineaceae | *Flexilinea* |
| 65 | Otu0076 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Oribacterium* |
| 66 | Otu0077 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *Oscillibacter* |
| 67 | Otu0079 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | *Pseudomonas* |
| 68 | Otu0080 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Burkholderiales\_unclassified | *Burkholderiales\_unclassified* |
| 69 | Otu0081 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Epulopiscium* |
| 70 | Otu0082 | Proteobacteria | Alphaproteobacteria | Rickettsiales | Mitochondria | *Mitochondria\_ge* |
| 71 | Otu0084 | Firmicutes | Clostridia | Clostridia\_vadinBB60\_group | Clostridia\_vadinBB60\_group\_fa | *Clostridia\_vadinBB60\_group\_ge* |
| 72 | Otu0085 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *Pirellula* |
| 73 | Otu0086 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Anaerovoracaceae | *Anaerovoracaceae\_unclassified* |
| 74 | Otu0087 | Proteobacteria | Gammaproteobacteria | Aeromonadales | Succinivibrionaceae | *Succinivibrionaceae\_unclassified* |
| 75 | Otu0089 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Veillonellaceae | *Dialister* |
| 76 | Otu0090 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *CPla-4\_termite\_group* |
| 77 | Otu0091 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *Eggerthellaceae\_unclassified* |
| 78 | Otu0092 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *Pirellulaceae\_unclassified* |
| 79 | Otu0093 | Verrucomicrobiota | Verrucomicrobiae | Verrucomicrobiales | Akkermansiaceae | *Akkermansia* |
| 80 | Otu0094 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *uncultured* |
| 81 | Otu0096 | Desulfobacterota | Desulfovibrionia | Desulfovibrionales | Desulfovibrionaceae | *Desulfovibrionaceae\_unclassified* |
| 82 | Otu0098 | Bacteroidota | Bacteroidia | Bacteroidales | uncultured | *uncultured\_ge* |
| 83 | Otu0099 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Anaerovoracaceae | *Anaerovorax* |
| 84 | Otu0101 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcaceae | *Peptostreptococcaceae\_unclassified* |
| 85 | Otu0102 | Firmicutes | Bacilli | RF39 | RF39\_fa | *RF39\_ge* |
| 86 | Otu0105 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Veillonellaceae | *Megasphaera* |
| 87 | Otu0107 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Veillonellaceae | *Veillonellaceae\_unclassified* |
| 88 | Otu0108 | Bacteroidota | Bacteroidia | Bacteroidales | Prevotellaceae | *Prevotellaceae\_ge* |
| 89 | Otu0109 | Firmicutes | Clostridia | Oscillospirales | Butyricicoccaceae | *UCG-009* |
| 90 | Otu0112 | Firmicutes | Clostridia | Oscillospirales | Butyricicoccaceae | *Butyricicoccaceae\_unclassified* |
| 91 | Otu0113 | Fusobacteriota | Fusobacteriia | Fusobacteriales | Fusobacteriaceae | *Fusobacterium* |
| 92 | Otu0114 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *UCG-002* |
| 93 | Otu0117 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Selenomonadaceae | *Selenomonadaceae\_unclassified* |
| 94 | Otu0118 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Comamonadaceae\_unclassified* |
| 95 | Otu0119 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *uncultured* |
| 96 | Otu0120 | Fusobacteriota | Fusobacteriia | Fusobacteriales | Fusobacteriaceae | *Fusobacteriaceae\_unclassified* |
| 97 | Otu0121 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Selenomonadaceae | *Mitsuokella* |
| 98 | Otu0122 | Fusobacteriota | Fusobacteriia | Fusobacteriales | Fusobacteriales\_unclassified | *Fusobacteriales\_unclassified* |
| 99 | Otu0123 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_ge* |
| 100 | Otu0124 | Firmicutes | Bacilli | Lactobacillales | Streptococcaceae | *Streptococcus* |
| 101 | Otu0126 | Actinobacteriota | Actinobacteria | Bifidobacteriales | Bifidobacteriaceae | *Bifidobacterium* |
| 102 | Otu0129 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *uncultured* |
| 103 | Otu0131 | Proteobacteria | Alphaproteobacteria | Rhodospirillales | uncultured | *uncultured\_ge* |
| 104 | Otu0132 | Proteobacteria | Gammaproteobacteria | Aeromonadales | Succinivibrionaceae | *Succinivibrio* |
| 105 | Otu0133 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Faecalibacterium* |
| 106 | Otu0134 | Proteobacteria | Alphaproteobacteria | Alphaproteobacteria\_unclassified | Alphaproteobacteria\_unclassified | *Alphaproteobacteria\_unclassified* |
| 107 | Otu0135 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Roseburia* |
| 108 | Otu0136 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Solobacterium* |
| 109 | Otu0138 | Campilobacterota | Campylobacteria | Campylobacterales | Campylobacteraceae | *Campylobacter* |
| 110 | Otu0141 | Bacteroidota | Bacteroidia | Flavobacteriales | Flavobacteriaceae | *Flavobacterium* |
| 111 | Otu0143 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Sphingomonadaceae\_unclassified* |
| 112 | Otu0144 | Firmicutes | Negativicutes | Acidaminococcales | Acidaminococcaceae | *Acidaminococcus* |
| 113 | Otu0145 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Anaerovoracaceae | *Anaerovoracaceae\_ge* |
| 114 | Otu0146 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelatoclostridiaceae | *Erysipelatoclostridiaceae\_unclassified* |
| 115 | Otu0149 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Coriobacteriales\_unclassified | *Coriobacteriales\_unclassified* |
| 116 | Otu0150 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Coprococcus* |
| 117 | Otu0151 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *Colidextribacter* |
| 118 | Otu0153 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *DNF00809* |
| 119 | Otu0156 | Bacteroidota | Bacteroidia | Bacteroidales | Paludibacteraceae | *Paludibacteraceae\_unclassified* |
| 120 | Otu0157 | Bacteroidota | Bacteroidia | Bacteroidales | Rikenellaceae | *U29-B03* |
| 121 | Otu0159 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Syntrophococcus* |
| 122 | Otu0161 | Cyanobacteria | Vampirivibrionia | Gastranaerophilales | Gastranaerophilales\_fa | *Gastranaerophilales\_ge* |
| 123 | Otu0164 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Veillonellales-Selenomonadales\_unclassified | *Veillonellales-Selenomonadales\_unclassified* |
| 124 | Otu0165 | Firmicutes | Bacilli | Staphylococcales | Staphylococcaceae | *Staphylococcus* |
| 125 | Otu0166 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Selenomonadaceae | *Selenomonas* |
| 126 | Otu0167 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Oxalobacteraceae | *Oxalobacteraceae\_unclassified* |
| 127 | Otu0170 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Rhizobiaceae\_unclassified* |
| 128 | Otu0171 | Proteobacteria | Proteobacteria\_unclassified | Proteobacteria\_unclassified | Proteobacteria\_unclassified | *Proteobacteria\_unclassified* |
| 129 | Otu0173 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Sphingomonas* |
| 130 | Otu0174 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_UCG-010* |
| 131 | Otu0176 | Spirochaetota | Spirochaetia | Spirochaetales | Spirochaetaceae | *Sediminispirochaeta* |
| 132 | Otu0177 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Clostridiaceae\_unclassified* |
| 133 | Otu0180 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Blautia* |
| 134 | Otu0181 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Phyllobacterium* |
| 135 | Otu0182 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Incertae\_Sedis* |
| 136 | Otu0183 | Actinobacteriota | Actinobacteria | Propionibacteriales | Nocardioidaceae | *Nocardioides* |
| 137 | Otu0184 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Atopobiaceae | *Olsenella* |
| 138 | Otu0185 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Pseudobutyrivibrio* |
| 139 | Otu0186 | Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadaceae | *Stenotrophomonas* |
| 140 | Otu0187 | Firmicutes | Clostridia | Lachnospirales | Defluviitaleaceae | *Defluviitaleaceae\_UCG-011* |
| 141 | Otu0188 | Firmicutes | Clostridia | Christensenellales | Christensenellaceae | *Christensenellaceae\_unclassified* |
| 142 | Otu0189 | Desulfobacterota | Desulfobulbia | Desulfobulbales | Desulfobulbaceae | *Desulfobulbus* |
| 143 | Otu0190 | Proteobacteria | Gammaproteobacteria | Pasteurellales | Pasteurellaceae | *Pasteurellaceae\_unclassified* |
| 144 | Otu0195 | Planctomycetota | Phycisphaerae | Tepidisphaerales | WD2101\_soil\_group | *WD2101\_soil\_group\_ge* |
| 145 | Otu0197 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Variovorax* |
| 146 | Otu0198 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Anaerovoracaceae | *Family\_XIII\_UCG-001* |
| 147 | Otu0199 | Campilobacterota | Campylobacteria | Campylobacterales | Campylobacterales\_unclassified | *Campylobacterales\_unclassified* |
| 148 | Otu0200 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnoclostridium* |
| 149 | Otu0201 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Tuzzerella* |
| 150 | Otu0203 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospira* |
| 151 | Otu0206 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Alcaligenaceae | *Alcaligenaceae\_unclassified* |
| 152 | Otu0207 | Chloroflexi | Chloroflexia | Thermomicrobiales | JG30-KF-CM45 | *JG30-KF-CM45\_ge* |
| 153 | Otu0208 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_NK4A136\_group* |
| 154 | Otu0209 | Firmicutes | Clostridia | Peptococcales | Peptococcaceae | *Peptococcaceae\_unclassified* |
| 155 | Otu0212 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Agathobacter* |
| 156 | Otu0213 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Breznakia* |
| 157 | Otu0214 | Bacteroidota | Bacteroidia | Sphingobacteriales | Sphingobacteriaceae | *Sphingobacterium* |
| 158 | Otu0216 | Chloroflexi | Chloroflexia | Chloroflexales | Roseiflexaceae | *uncultured* |
| 159 | Otu0217 | Bacteroidota | Bacteroidia | Flavobacteriales | Flavobacteriaceae | *Flavobacteriaceae\_unclassified* |
| 160 | Otu0218 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Clostridium\_sensu\_stricto\_1* |
| 161 | Otu0219 | Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadaceae | *Xanthomonadaceae\_unclassified* |
| 162 | Otu0221 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | *Pseudomonadaceae\_unclassified* |
| 163 | Otu0222 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Pseudocitrobacter* |
| 164 | Otu0223 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcaceae | *Romboutsia* |
| 165 | Otu0224 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_UCG-004* |
| 166 | Otu0225 | Firmicutes | Clostridia | Oscillospirales | Butyricicoccaceae | *Butyricicoccus* |
| 167 | Otu0227 | Firmicutes | Bacilli | Lactobacillales | Lactobacillaceae | *Lactobacillus* |
| 168 | Otu0228 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Turicibacter* |
| 169 | Otu0231 | Proteobacteria | Alphaproteobacteria | Rhodospirillales | Rhodospirillales\_unclassified | *Rhodospirillales\_unclassified* |
| 170 | Otu0232 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *Brevundimonas* |
| 171 | Otu0233 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *Pseudoflavonifractor* |
| 172 | Otu0234 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Xanthobacteraceae\_unclassified* |
| 173 | Otu0235 | Chloroflexi | Anaerolineae | Anaerolineales | Anaerolineaceae | *Anaerolineaceae\_unclassified* |
| 174 | Otu0237 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Holdemanella* |
| 175 | Otu0240 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Coriobacteriaceae | *Collinsella* |
| 176 | Otu0241 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelatoclostridiaceae | *Catenibacterium* |
| 177 | Otu0242 | Fusobacteriota | Fusobacteriia | Fusobacteriales | Fusobacteriaceae | *Fusobacteriaceae\_ge* |
| 178 | Otu0243 | Acidobacteriota | Blastocatellia | Pyrinomonadales | Pyrinomonadaceae | *RB41* |
| 179 | Otu0245 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Veillonellaceae | *Veillonella* |
| 180 | Otu0246 | Firmicutes | Bacilli | Entomoplasmatales | Spiroplasmataceae | *Spiroplasma* |
| 181 | Otu0247 | Actinobacteriota | Actinobacteriota\_unclassified | Actinobacteriota\_unclassified | Actinobacteriota\_unclassified | *Actinobacteriota\_unclassified* |
| 182 | Otu0248 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Anaerovoracaceae | *Mogibacterium* |
| 183 | Otu0249 | Verrucomicrobiota | Verrucomicrobiae | Pedosphaerales | Pedosphaeraceae | *Pedosphaeraceae\_unclassified* |
| 184 | Otu0250 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Sutterellaceae | *Parasutterella* |
| 185 | Otu0251 | Proteobacteria | Gammaproteobacteria | Pasteurellales | Pasteurellaceae | *Bibersteinia* |
| 186 | Otu0252 | Firmicutes | Bacilli | Bacillales | Bacillaceae | *Bacillus* |
| 187 | Otu0253 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_FCS020\_group* |
| 188 | Otu0255 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Micromonosporaceae\_unclassified* |
| 189 | Otu0256 | Firmicutes | Bacilli | Bacillales | Planococcaceae | *Planococcaceae\_unclassified* |
| 190 | Otu0257 | Chloroflexi | Anaerolineae | Anaerolineales | Anaerolineaceae | *uncultured* |
| 191 | Otu0259 | Firmicutes | Clostridia | Clostridia\_or | Hungateiclostridiaceae | *Hungateiclostridiaceae\_unclassified* |
| 192 | Otu0260 | Proteobacteria | Gammaproteobacteria | Pasteurellales | Pasteurellaceae | *Haemophilus* |
| 193 | Otu0261 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Sutterellaceae | *Sutterella* |
| 194 | Otu0262 | Chloroflexi | Anaerolineae | Anaerolineales | Anaerolineaceae | *UTCFX1* |
| 195 | Otu0264 | Acidobacteriota | Vicinamibacteria | Vicinamibacterales | Vicinamibacteraceae | *Vicinamibacteraceae\_ge* |
| 196 | Otu0265 | Bacteroidota | Bacteroidia | Flavobacteriales | Weeksellaceae | *Empedobacter* |
| 197 | Otu0266 | Proteobacteria | Gammaproteobacteria | Gammaproteobacteria\_Incertae\_Sedis | Unknown\_Family | *Acidibacter* |
| 198 | Otu0267 | Gemmatimonadota | Gemmatimonadetes | Gemmatimonadales | Gemmatimonadaceae | *uncultured* |
| 199 | Otu0268 | Planctomycetota | Planctomycetes | Gemmatales | Gemmataceae | *uncultured* |
| 200 | Otu0270 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Frisingicoccus* |
| 201 | Otu0272 | Actinobacteriota | Thermoleophilia | Gaiellales | uncultured | *uncultured\_ge* |
| 202 | Otu0273 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *Slackia* |
| 203 | Otu0275 | Actinobacteriota | Actinobacteria | Actinobacteria\_unclassified | Actinobacteria\_unclassified | *Actinobacteria\_unclassified* |
| 204 | Otu0276 | Chloroflexi | KD4-96 | KD4-96\_or | KD4-96\_fa | *KD4-96\_ge* |
| 205 | Otu0277 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Rhodobacteraceae\_unclassified* |
| 206 | Otu0281 | Chloroflexi | Anaerolineae | SBR1031 | A4b | *A4b\_ge* |
| 207 | Otu0282 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelatoclostridiaceae | *Erysipelatoclostridium* |
| 208 | Otu0283 | Firmicutes | Bacilli | Bacillales | Bacillales\_unclassified | *Bacillales\_unclassified* |
| 209 | Otu0285 | Firmicutes | Syntrophomonadia | Syntrophomonadales | Syntrophomonadaceae | *Syntrophomonadaceae\_unclassified* |
| 210 | Otu0290 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcaceae | *Terrisporobacter* |
| 211 | Otu0292 | Firmicutes | Bacilli | Bacillales | Bacillaceae | *Bacillaceae\_unclassified* |
| 212 | Otu0294 | Acidobacteriota | Acidobacteriae | Bryobacterales | Bryobacteraceae | *Bryobacter* |
| 213 | Otu0295 | Firmicutes | Bacilli | Mycoplasmatales | Mycoplasmataceae | *Mycoplasma* |
| 214 | Otu0296 | Planctomycetota | Planctomycetes | Isosphaerales | Isosphaeraceae | *uncultured* |
| 215 | Otu0298 | Planctomycetota | Planctomycetes | Gemmatales | Gemmataceae | *Gemmata* |
| 216 | Otu0299 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Beijerinckiaceae | *Methylobacterium-Methylorubrum* |
| 217 | Otu0300 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Chitinophagaceae\_unclassified* |
| 218 | Otu0303 | Firmicutes | Clostridia | Oscillospirales | Oscillospirales\_fa | *Hydrogenoanaerobacterium* |
| 219 | Otu0304 | Bacteroidota | Bacteroidia | Sphingobacteriales | Sphingobacteriaceae | *Pedobacter* |
| 220 | Otu0308 | Bacteroidota | Bacteroidia | Bacteroidales | PeH15 | *PeH15\_ge* |
| 221 | Otu0309 | Patescibacteria | Saccharimonadia | Saccharimonadales | Saccharimonadales\_fa | *Saccharimonadales\_ge* |
| 222 | Otu0310 | Actinobacteriota | Thermoleophilia | Gaiellales | Gaiellales\_unclassified | *Gaiellales\_unclassified* |
| 223 | Otu0311 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Lachnospiraceae\_ND3007\_group* |
| 224 | Otu0312 | Actinobacteriota | Actinobacteria | Propionibacteriales | Nocardioidaceae | *Marmoricola* |
| 225 | Otu0313 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *CAG-56* |
| 226 | Otu0316 | Firmicutes | Bacilli | Lactobacillales | Lactobacillales\_unclassified | *Lactobacillales\_unclassified* |
| 227 | Otu0317 | Myxococcota | Polyangia | Polyangiales | BIrii41 | *BIrii41\_ge* |
| 228 | Otu0319 | Planctomycetota | Planctomycetes | Gemmatales | Gemmataceae | *Gemmataceae\_unclassified* |
| 229 | Otu0321 | Myxococcota | Polyangia | Haliangiales | Haliangiaceae | *Haliangium* |
| 230 | Otu0323 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | 67-14 | *67-14\_ge* |
| 231 | Otu0324 | Actinobacteriota | Actinobacteria | Corynebacteriales | Nocardiaceae | *Rhodococcus* |
| 232 | Otu0326 | Actinobacteriota | Actinobacteria | Micrococcales | Microbacteriaceae | *Microbacteriaceae\_unclassified* |
| 233 | Otu0327 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Beijerinckiaceae | *Microvirga* |
| 234 | Otu0328 | Acidobacteriota | Vicinamibacteria | Vicinamibacterales | uncultured | *uncultured\_ge* |
| 235 | Otu0329 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *uncultured* |
| 236 | Otu0331 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Allorhizobium-Neorhizobium-Pararhizobium-Rhizobium* |
| 237 | Otu0333 | Firmicutes | Bacilli | Alicyclobacillales | Alicyclobacillaceae | *Tumebacillus* |
| 238 | Otu0334 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Howardella* |
| 239 | Otu0336 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Moraxellaceae | *Moraxellaceae\_unclassified* |
| 240 | Otu0337 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Subdoligranulum* |
| 241 | Otu0338 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Dorea* |
| 242 | Otu0340 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Comamonas* |
| 243 | Otu0341 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *Solirubrobacter* |
| 244 | Otu0342 | Planctomycetota | OM190 | OM190\_or | OM190\_fa | *OM190\_ge* |
| 245 | Otu0344 | Actinobacteriota | Rubrobacteria | Rubrobacterales | Rubrobacteriaceae | *Rubrobacter* |
| 246 | Otu0345 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Micrococcaceae\_unclassified* |
| 247 | Otu0346 | Firmicutes | Bacilli | Mycoplasmatales | Mycoplasmataceae | *Mycoplasmataceae\_unclassified* |
| 248 | Otu0347 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *Caulobacteraceae\_unclassified* |
| 249 | Otu0348 | Bacteroidota | Bacteroidia | Cytophagales | Microscillaceae | *uncultured* |
| 250 | Otu0349 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Stakelama* |
| 251 | Otu0352 | Actinobacteriota | Thermoleophilia | Gaiellales | Gaiellaceae | *Gaiella* |
| 252 | Otu0353 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiales\_unclassified | *Rhizobiales\_unclassified* |
| 253 | Otu0354 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *Solirubrobacteraceae\_unclassified* |
| 254 | Otu0355 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Oxalobacteraceae | *Janthinobacterium* |
| 255 | Otu0356 | Bacteroidota | Bacteroidia | Flavobacteriales | Weeksellaceae | *Chryseobacterium* |
| 256 | Otu0358 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *Pir4\_lineage* |
| 257 | Otu0359 | Actinobacteriota | MB-A2-108 | MB-A2-108\_or | MB-A2-108\_fa | *MB-A2-108\_ge* |
| 258 | Otu0360 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Devosiaceae | *Devosia* |
| 259 | Otu0361 | Actinobacteriota | Actinobacteria | Micrococcales | Microbacteriaceae | *Microbacterium* |
| 260 | Otu0362 | Chloroflexi | TK10 | TK10\_or | TK10\_fa | *TK10\_ge* |
| 261 | Otu0363 | Planctomycetota | Planctomycetes | Gemmatales | Gemmataceae | *Fimbriiglobus* |
| 262 | Otu0364 | Planctomycetota | Planctomycetes | Isosphaerales | Isosphaeraceae | *Isosphaeraceae\_unclassified* |
| 263 | Otu0365 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *V9D2013\_group* |
| 264 | Otu0366 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Sphingobium* |
| 265 | Otu0367 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *Caulobacter* |
| 266 | Otu0368 | Chloroflexi | Anaerolineae | SBR1031 | SBR1031\_fa | *SBR1031\_ge* |
| 267 | Otu0369 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *uncultured* |
| 268 | Otu0370 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Flavisolibacter* |
| 269 | Otu0371 | Actinobacteriota | Acidimicrobiia | Actinomarinales | uncultured | *uncultured\_ge* |
| 270 | Otu0373 | Bacteroidota | Bacteroidia | Flavobacteriales | Weeksellaceae | *Weeksellaceae\_unclassified* |
| 271 | Otu0375 | Bacteroidota | Bacteroidia | Bacteroidales | Tannerellaceae | *Parabacteroides* |
| 272 | Otu0376 | Acidobacteriota | Blastocatellia | Nov-24 | 11-24\_fa | *11-24\_ge* |
| 273 | Otu0377 | Planctomycetota | Planctomycetes | Planctomycetales | uncultured | *uncultured\_ge* |
| 274 | Otu0378 | Latescibacterota | Latescibacterota\_cl | Latescibacterota\_or | Latescibacterota\_fa | *Latescibacterota\_ge* |
| 275 | Otu0379 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Klebsiella* |
| 276 | Otu0380 | Verrucomicrobiota | Verrucomicrobiae | Pedosphaerales | Pedosphaeraceae | *Pedosphaeraceae\_ge* |
| 277 | Otu0382 | Gemmatimonadota | Gemmatimonadetes | Gemmatimonadales | Gemmatimonadaceae | *Roseisolibacter* |
| 278 | Otu0383 | Verrucomicrobiota | Verrucomicrobiae | Opitutales | Opitutaceae | *Opitutus* |
| 279 | Otu0384 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *UBA1819* |
| 280 | Otu0385 | Chloroflexi | Chloroflexi\_unclassified | Chloroflexi\_unclassified | Chloroflexi\_unclassified | *Chloroflexi\_unclassified* |
| 281 | Otu0387 | Gemmatimonadota | S0134\_terrestrial\_group | S0134\_terrestrial\_group\_or | S0134\_terrestrial\_group\_fa | *S0134\_terrestrial\_group\_ge* |
| 282 | Otu0388 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Novosphingobium* |
| 283 | Otu0390 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Beijerinckiaceae | *Beijerinckiaceae\_unclassified* |
| 284 | Otu0391 | Actinobacteriota | Actinobacteria | Pseudonocardiales | Pseudonocardiaceae | *Pseudonocardia* |
| 285 | Otu0392 | Firmicutes | Bacilli | Lactobacillales | Enterococcaceae | *Enterococcus* |
| 286 | Otu0393 | Acidobacteriota | Thermoanaerobaculia | Thermoanaerobaculales | Thermoanaerobaculaceae | *Subgroup\_10* |
| 287 | Otu0394 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Nitrosomonadaceae | *MND1* |
| 288 | Otu0395 | Acidobacteriota | Holophagae | Subgroup\_7 | Subgroup\_7\_fa | *Subgroup\_7\_ge* |
| 289 | Otu0396 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Hydrogenophaga* |
| 290 | Otu0398 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *uncultured* |
| 291 | Otu0399 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Selenomonadaceae | *Megamonas* |
| 292 | Otu0400 | Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadaceae | *Lysobacter* |
| 293 | Otu0401 | Actinobacteriota | Actinobacteria | Corynebacteriales | Corynebacteriales\_unclassified | *Corynebacteriales\_unclassified* |
| 294 | Otu0404 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Candidatus\_Soleaferrea* |
| 295 | Otu0405 | Actinobacteriota | Actinobacteria | Propionibacteriales | Nocardioidaceae | *Kribbella* |
| 296 | Otu0406 | Actinobacteriota | Acidimicrobiia | Acidimicrobiia\_unclassified | Acidimicrobiia\_unclassified | *Acidimicrobiia\_unclassified* |
| 297 | Otu0408 | Actinobacteriota | Actinobacteria | Propionibacteriales | Nocardioidaceae | *Nocardioidaceae\_unclassified* |
| 298 | Otu0410 | Actinobacteriota | Actinobacteria | Pseudonocardiales | Pseudonocardiaceae | *Pseudonocardiaceae\_unclassified* |
| 299 | Otu0411 | Actinobacteriota | Actinobacteria | Streptomycetales | Streptomycetaceae | *Streptomyces* |
| 300 | Otu0412 | Actinobacteriota | Acidimicrobiia | Microtrichales | uncultured | *uncultured\_ge* |
| 301 | Otu0413 | Proteobacteria | Alphaproteobacteria | Dongiales | Dongiaceae | *Dongia* |
| 302 | Otu0414 | Chloroflexi | Gitt-GS-136 | Gitt-GS-136\_or | Gitt-GS-136\_fa | *Gitt-GS-136\_ge* |
| 303 | Otu0417 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Beijerinckiaceae | *Bosea* |
| 304 | Otu0418 | Patescibacteria | Saccharimonadia | Saccharimonadales | Saccharimonadales\_unclassified | *Saccharimonadales\_unclassified* |
| 305 | Otu0419 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Acidovorax* |
| 306 | Otu0420 | Actinobacteriota | Actinobacteria | Micrococcales | Intrasporangiaceae | *Intrasporangiaceae\_unclassified* |
| 307 | Otu0421 | Firmicutes | Clostridia | Clostridia\_or | Hungateiclostridiaceae | *Ruminiclostridium* |
| 308 | Otu0423 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcaceae | *Intestinibacter* |
| 309 | Otu0428 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *Solirubrobacteraceae\_ge* |
| 310 | Otu0429 | Bacteroidota | Bacteroidia | Cytophagales | Microscillaceae | *Ohtaekwangia* |
| 311 | Otu0430 | Actinobacteriota | Acidimicrobiia | Microtrichales | Ilumatobacteraceae | *uncultured* |
| 312 | Otu0431 | Actinobacteriota | Actinobacteria | Micrococcales | Microbacteriaceae | *Cryobacterium* |
| 313 | Otu0433 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Mesorhizobium* |
| 314 | Otu0434 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Devosiaceae | *Devosiaceae\_unclassified* |
| 315 | Otu0437 | Fusobacteriota | Fusobacteriia | Fusobacteriales | Leptotrichiaceae | *Leptotrichiaceae\_unclassified* |
| 316 | Otu0439 | Firmicutes | Bacilli | Lactobacillales | Leuconostocaceae | *Weissella* |
| 317 | Otu0442 | Actinobacteriota | Actinobacteria | Propionibacteriales | Nocardioidaceae | *Aeromicrobium* |
| 318 | Otu0444 | Actinobacteriota | Actinobacteria | Corynebacteriales | Corynebacteriaceae | *Corynebacterium* |
| 319 | Otu0446 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Actinoplanes* |
| 320 | Otu0448 | Chloroflexi | Dehalococcoidia | S085 | S085\_fa | *S085\_ge* |
| 321 | Otu0449 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *Phenylobacterium* |
| 322 | Otu0450 | Planctomycetota | Planctomycetes | uncultured | uncultured\_fa | *uncultured\_ge* |
| 323 | Otu0452 | Methylomirabilota | Methylomirabilia | Rokubacteriales | Rokubacteriales\_fa | *Rokubacteriales\_ge* |
| 324 | Otu0453 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Paracoccus* |
| 325 | Otu0456 | Proteobacteria | Alphaproteobacteria | uncultured | uncultured\_fa | *uncultured\_ge* |
| 326 | Otu0458 | Firmicutes | Bacilli | Lactobacillales | Streptococcaceae | *Streptococcaceae\_unclassified* |
| 327 | Otu0459 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Nitrosomonadaceae | *Ellin6067* |
| 328 | Otu0460 | Myxococcota | Polyangia | Polyangiales | Sandaracinaceae | *uncultured* |
| 329 | Otu0461 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *UCG-003* |
| 330 | Otu0462 | Chloroflexi | Anaerolineae | Ardenticatenales | uncultured | *uncultured\_ge* |
| 331 | Otu0463 | Gemmatimonadota | Gemmatimonadetes | Gemmatimonadales | Gemmatimonadaceae | *Gemmatimonadaceae\_unclassified* |
| 332 | Otu0464 | Firmicutes | Clostridia | Oscillospirales | Ruminococcaceae | *Paludicola* |
| 333 | Otu0466 | Actinobacteriota | Actinobacteria | Actinomycetales | Actinomycetaceae | *Actinomyces* |
| 334 | Otu0467 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Yersiniaceae | *Serratia* |
| 335 | Otu0468 | Acidobacteriota | Blastocatellia | DS-100 | DS-100\_fa | *DS-100\_ge* |
| 336 | Otu0470 | Bdellovibrionota | Oligoflexia | 0319-6G20 | 0319-6G20\_fa | *0319-6G20\_ge* |
| 337 | Otu0471 | Verrucomicrobiota | Verrucomicrobiae | Chthoniobacterales | Chthoniobacteraceae | *Chthoniobacter* |
| 338 | Otu0472 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Bradyrhizobium* |
| 339 | Otu0473 | Proteobacteria | Gammaproteobacteria | Burkholderiales | TRA3-20 | *TRA3-20\_ge* |
| 340 | Otu0475 | Bacteroidota | Bacteroidia | Sphingobacteriales | Sphingobacteriaceae | *Sphingobacteriaceae\_unclassified* |
| 341 | Otu0476 | MBNT15 | MBNT15\_cl | MBNT15\_or | MBNT15\_fa | *MBNT15\_ge* |
| 342 | Otu0478 | Nitrospirota | Nitrospiria | Nitrospirales | Nitrospiraceae | *Nitrospira* |
| 343 | Otu0481 | Myxococcota | bacteriap25 | bacteriap25\_or | bacteriap25\_fa | *bacteriap25\_ge* |
| 344 | Otu0482 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Ellin6055* |
| 345 | Otu0484 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Heliimonas* |
| 346 | Otu0485 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Rhodopseudomonas* |
| 347 | Otu0487 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Aminobacter* |
| 348 | Otu0488 | Proteobacteria | Gammaproteobacteria | Steroidobacterales | Steroidobacteraceae | *Steroidobacter* |
| 349 | Otu0489 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Curvibacter* |
| 350 | Otu0490 | Proteobacteria | Alphaproteobacteria | Reyranellales | Reyranellaceae | *Reyranella* |
| 351 | Otu0491 | Verrucomicrobiota | Verrucomicrobiae | Opitutales | Opitutaceae | *Opitutaceae\_unclassified* |
| 352 | Otu0492 | Actinobacteriota | Actinobacteria | Corynebacteriales | Mycobacteriaceae | *Mycobacterium* |
| 353 | Otu0493 | Desulfobacterota | Desulfovibrionia | Desulfovibrionales | Desulfovibrionaceae | *Bilophila* |
| 354 | Otu0494 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Aquabacterium* |
| 355 | Otu0495 | Actinobacteriota | Acidimicrobiia | Microtrichales | Ilumatobacteraceae | *Ilumatobacter* |
| 356 | Otu0496 | Myxococcota | Polyangia | Polyangiales | Polyangiales\_unclassified | *Polyangiales\_unclassified* |
| 357 | Otu0497 | Proteobacteria | Gammaproteobacteria | Burkholderiales | SC-I-84 | *SC-I-84\_ge* |
| 358 | Otu0499 | Actinobacteriota | Acidimicrobiia | Microtrichales | Ilumatobacteraceae | *Ilumatobacteraceae\_unclassified* |
| 359 | Otu0501 | Verrucomicrobiota | Verrucomicrobiae | Opitutales | Puniceicoccaceae | *Cerasicoccus* |
| 360 | Otu0502 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Anaerococcus* |
| 361 | Otu0504 | Gemmatimonadota | Gemmatimonadetes | Gemmatimonadales | Gemmatimonadaceae | *Gemmatimonas* |
| 362 | Otu0505 | Verrucomicrobiota | Chlamydiae | Chlamydiales | Parachlamydiaceae | *Candidatus\_Protochlamydia* |
| 363 | Otu0508 | Actinobacteriota | Actinobacteria | Pseudonocardiales | Pseudonocardiaceae | *Lechevalieria* |
| 364 | Otu0509 | Bacteroidota | Bacteroidia | Sphingobacteriales | Sphingobacteriaceae | *Mucilaginibacter* |
| 365 | Otu0510 | Firmicutes | Clostridia | Oscillospirales | Oscillospiraceae | *Flavonifractor* |
| 366 | Otu0511 | Armatimonadota | Chthonomonadetes | Chthonomonadales | Chthonomonadales\_fa | *Chthonomonadales\_ge* |
| 367 | Otu0513 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcales\_Incertae\_Sedis | *Timonella* |
| 368 | Otu0515 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Shinella* |
| 369 | Otu0516 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *Senegalimassilia* |
| 370 | Otu0517 | Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadales\_unclassified | *Xanthomonadales\_unclassified* |
| 371 | Otu0520 | Actinobacteriota | Acidimicrobiia | IMCC26256 | IMCC26256\_fa | *IMCC26256\_ge* |
| 372 | Otu0521 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Pelomonas* |
| 373 | Otu0523 | Planctomycetota | Planctomycetes | Planctomycetales | Rubinisphaeraceae | *SH-PL14* |
| 374 | Otu0524 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Fusicatenibacter* |
| 375 | Otu0528 | Actinobacteriota | Thermoleophilia | Thermoleophilia\_unclassified | Thermoleophilia\_unclassified | *Thermoleophilia\_unclassified* |
| 376 | Otu0529 | Firmicutes | Bacilli | Exiguobacterales | Exiguobacteraceae | *Exiguobacterium* |
| 377 | Otu0531 | Patescibacteria | Saccharimonadia | Saccharimonadales | Saccharimonadaceae | *TM7a* |
| 378 | Otu0533 | Planctomycetota | Pla3\_lineage | Pla3\_lineage\_or | Pla3\_lineage\_fa | *Pla3\_lineage\_ge* |
| 379 | Otu0535 | Actinobacteriota | Acidimicrobiia | Microtrichales | Microtrichales\_unclassified | *Microtrichales\_unclassified* |
| 380 | Otu0537 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Pseudorhizobium* |
| 381 | Otu0538 | Chloroflexi | Chloroflexia | Kallotenuales | AKIW781 | *AKIW781\_ge* |
| 382 | Otu0539 | Firmicutes | Bacilli | Bacillales | Planococcaceae | *Solibacillus* |
| 383 | Otu0541 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Candidatus\_Arthromitus* |
| 384 | Otu0546 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Delftia* |
| 385 | Otu0549 | Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadaceae | *Pseudoxanthomonas* |
| 386 | Otu0550 | Chloroflexi | Anaerolineae | Caldilineales | Caldilineaceae | *uncultured* |
| 387 | Otu0551 | Verrucomicrobiota | Verrucomicrobiae | Pedosphaerales | Pedosphaeraceae | *uncultured* |
| 388 | Otu0553 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Altererythrobacter* |
| 389 | Otu0554 | Bacteroidota | Bacteroidia | Bacteroidales | Dysgonomonadaceae | *Dysgonomonas* |
| 390 | Otu0555 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Chitinophaga* |
| 391 | Otu0556 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Rubellimicrobium* |
| 392 | Otu0557 | Acidobacteriota | Vicinamibacteria | Vicinamibacterales | Vicinamibacterales\_unclassified | *Vicinamibacterales\_unclassified* |
| 393 | Otu0559 | Firmicutes | Thermaerobacteria | Thermaerobacterales | Thermaerobacteraceae | *Thermaerobacter* |
| 394 | Otu0561 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiales\_Incertae\_Sedis | *Bauldia* |
| 395 | Otu0562 | Chloroflexi | Chloroflexia | Chloroflexales | Roseiflexaceae | *Roseiflexaceae\_unclassified* |
| 396 | Otu0563 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Hydrogenophilaceae | *Thiobacillus* |
| 397 | Otu0564 | Patescibacteria | Parcubacteria | Parcubacteria\_unclassified | Parcubacteria\_unclassified | *Parcubacteria\_unclassified* |
| 398 | Otu0566 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Anaerostipes* |
| 399 | Otu0568 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Rhodoplanes* |
| 400 | Otu0569 | Planctomycetota | Planctomycetes | Pirellulales | Pirellulaceae | *Rhodopirellula* |
| 401 | Otu0570 | Acidobacteriota | Acidobacteriae | Acidobacteriae\_unclassified | Acidobacteriae\_unclassified | *Acidobacteriae\_unclassified* |
| 402 | Otu0571 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiales\_Incertae\_Sedis | *Nordella* |
| 403 | Otu0572 | Verrucomicrobiota | Verrucomicrobiae | Verrucomicrobiales | DEV007 | *DEV007\_ge* |
| 404 | Otu0573 | Actinobacteriota | Actinobacteria | Micrococcales | Promicromonosporaceae | *Promicromonospora* |
| 405 | Otu0574 | Planctomycetota | Planctomycetes | Planctomycetales | Rubinisphaeraceae | *Planctomicrobium* |
| 406 | Otu0575 | Myxococcota | Polyangia | Polyangiales | Polyangiaceae | *uncultured* |
| 407 | Otu0577 | Acidobacteriota | Blastocatellia | Blastocatellales | Blastocatellaceae | *uncultured* |
| 408 | Otu0578 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Moraxellaceae | *Psychrobacter* |
| 409 | Otu0580 | Acidobacteriota | Acidobacteriae | Solibacterales | Solibacteraceae | *Candidatus\_Solibacter* |
| 410 | Otu0583 | Chloroflexi | Anaerolineae | Anaerolineae\_unclassified | Anaerolineae\_unclassified | *Anaerolineae\_unclassified* |
| 411 | Otu0584 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Ochrobactrum* |
| 412 | Otu0585 | Actinobacteriota | Actinobacteria | Corynebacteriales | Nocardiaceae | *Williamsia* |
| 413 | Otu0586 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Xylophilus* |
| 414 | Otu0588 | Patescibacteria | Parcubacteria | Parcubacteria\_or | Parcubacteria\_fa | *Parcubacteria\_ge* |
| 415 | Otu0589 | Proteobacteria | Alphaproteobacteria | Rhizobiales | uncultured | *uncultured\_ge* |
| 416 | Otu0590 | Acidobacteriota | Vicinamibacteria | Subgroup\_17 | Subgroup\_17\_fa | *Subgroup\_17\_ge* |
| 417 | Otu0591 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Edaphobaculum* |
| 418 | Otu0592 | Firmicutes | Bacilli | Lactobacillales | Carnobacteriaceae | *Desemzia* |
| 419 | Otu0593 | Firmicutes | Bacilli | Erysipelotrichales | Erysipelotrichaceae | *Dielma* |
| 420 | Otu0595 | Proteobacteria | Alphaproteobacteria | Elsterales | uncultured | *uncultured\_ge* |
| 421 | Otu0596 | Actinobacteriota | Actinobacteria | Propionibacteriales | Propionibacteriales\_unclassified | *Propionibacteriales\_unclassified* |
| 422 | Otu0597 | Bacteroidota | Bacteroidia | Chitinophagales | Saprospiraceae | *uncultured* |
| 423 | Otu0599 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Moraxellaceae | *Enhydrobacter* |
| 424 | Otu0600 | Firmicutes | Limnochordia | Limnochordia\_or | Limnochordia\_fa | *Hydrogenispora* |
| 425 | Otu0601 | Proteobacteria | Gammaproteobacteria | PLTA13 | PLTA13\_fa | *PLTA13\_ge* |
| 426 | Otu0603 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadales\_unclassified | *Pseudomonadales\_unclassified* |
| 427 | Otu0605 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Flavihumibacter* |
| 428 | Otu0608 | Acidobacteriota | Vicinamibacteria | Vicinamibacterales | Vicinamibacteraceae | *uncultured* |
| 429 | Otu0609 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Hyphomonadaceae | *SWB02* |
| 430 | Otu0612 | Patescibacteria | Saccharimonadia | Saccharimonadales | Saccharimonadaceae | *TM7x* |
| 431 | Otu0613 | Bdellovibrionota | Bdellovibrionia | Bdellovibrionales | Bdellovibrionaceae | *OM27\_clade* |
| 432 | Otu0615 | Bacteroidota | Bacteroidia | Bacteroidales | Rikenellaceae | *dgA-11\_gut\_group* |
| 433 | Otu0617 | Patescibacteria | Saccharimonadia | Saccharimonadales | Saccharimonadaceae | *GTL1* |
| 434 | Otu0619 | Bacteroidota | Bacteroidia | Bacteroidales | Marinifilaceae | *Butyricimonas* |
| 435 | Otu0620 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Atopobiaceae | *Libanicoccus* |
| 436 | Otu0622 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Erwiniaceae | *Pantoea* |
| 437 | Otu0623 | Bacteroidota | Bacteroidia | Cytophagales | Spirosomaceae | *Arcicella* |
| 438 | Otu0624 | Patescibacteria | Saccharimonadia | Saccharimonadales | LWQ8 | *LWQ8\_ge* |
| 439 | Otu0626 | Cyanobacteria | Vampirivibrionia | Obscuribacterales | Obscuribacteraceae | *Obscuribacteraceae\_ge* |
| 440 | Otu0627 | Actinobacteriota | Actinobacteria | Frankiales | Cryptosporangiaceae | *Cryptosporangium* |
| 441 | Otu0629 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Virgisporangium* |
| 442 | Otu0630 | Proteobacteria | Alphaproteobacteria | Paracaedibacterales | Paracaedibacteraceae | *uncultured* |
| 443 | Otu0632 | Proteobacteria | Gammaproteobacteria | Legionellales | Legionellaceae | *Legionella* |
| 444 | Otu0633 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Kocuria* |
| 445 | Otu0636 | Proteobacteria | Gammaproteobacteria | Xanthomonadales | Rhodanobacteraceae | *Rhodanobacteraceae\_unclassified* |
| 446 | Otu0640 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Hungatella* |
| 447 | Otu0641 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Ensifer* |
| 448 | Otu0644 | Actinobacteriota | Actinobacteria | Streptomycetales | Streptomycetaceae | *Streptomycetaceae\_unclassified* |
| 449 | Otu0646 | Verrucomicrobiota | Verrucomicrobiae | Opitutales | Opitutaceae | *Lacunisphaera* |
| 450 | Otu0647 | Proteobacteria | Gammaproteobacteria | Steroidobacterales | Steroidobacteraceae | *Steroidobacteraceae\_unclassified* |
| 451 | Otu0648 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Sediminibacterium* |
| 452 | Otu0649 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Proteiniclasticum* |
| 453 | Otu0650 | Proteobacteria | Alphaproteobacteria | Rhizobiales | KF-JG30-B3 | *KF-JG30-B3\_ge* |
| 454 | Otu0651 | Firmicutes | Incertae\_Sedis | DTU014 | DTU014\_fa | *DTU014\_ge* |
| 455 | Otu0653 | Verrucomicrobiota | Verrucomicrobiae | Chthoniobacterales | Chthoniobacteraceae | *Chthoniobacteraceae\_unclassified* |
| 456 | Otu0654 | Desulfobacterota | uncultured | uncultured\_or | uncultured\_fa | *uncultured\_ge* |
| 457 | Otu0655 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *UTBCD1* |
| 458 | Otu0656 | Firmicutes | Bacilli | Bacillales | Planococcaceae | *Psychrobacillus* |
| 459 | Otu0657 | Acidobacteriota | Blastocatellia | Blastocatellales | Blastocatellaceae | *Blastocatella* |
| 460 | Otu0660 | Firmicutes | Bacilli | Staphylococcales | Staphylococcaceae | *Staphylococcaceae\_unclassified* |
| 461 | Otu0661 | Planctomycetota | Planctomycetes | Planctomycetales | Schlesneriaceae | *Planctopirus* |
| 462 | Otu0662 | Firmicutes | Bacilli | Bacillales | Planococcaceae | *Kurthia* |
| 463 | Otu0663 | Chloroflexi | JG30-KF-CM66 | JG30-KF-CM66\_or | JG30-KF-CM66\_fa | *JG30-KF-CM66\_ge* |
| 464 | Otu0664 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Alcaligenaceae | *Verticiella* |
| 465 | Otu0665 | Firmicutes | Bacilli | Lactobacillales | Carnobacteriaceae | *Carnobacterium* |
| 466 | Otu0666 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *Gordonibacter* |
| 467 | Otu0671 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Ramlibacter* |
| 468 | Otu0674 | Proteobacteria | Gammaproteobacteria | R7C24 | R7C24\_fa | *R7C24\_ge* |
| 469 | Otu0675 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Rhodocyclaceae | *Zoogloea* |
| 470 | Otu0678 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Niastella* |
| 471 | Otu0680 | Gemmatimonadota | Longimicrobia | Longimicrobiales | Longimicrobiaceae | *YC-ZSS-LKJ147* |
| 472 | Otu0682 | Chloroflexi | Ktedonobacteria | C0119 | C0119\_fa | *C0119\_ge* |
| 473 | Otu0683 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Methylophilaceae | *Methylophilaceae\_unclassified* |
| 474 | Otu0684 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Pseudoflavitalea* |
| 475 | Otu0686 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Enterobacter* |
| 476 | Otu0687 | Actinobacteriota | Actinobacteria | Pseudonocardiales | Pseudonocardiaceae | *Kibdelosporangium* |
| 477 | Otu0688 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *uncultured* |
| 478 | Otu0689 | Bacteroidota | Bacteroidia | Cytophagales | Hymenobacteraceae | *Adhaeribacter* |
| 479 | Otu0690 | Myxococcota | Polyangia | Polyangiales | Sandaracinaceae | *Sandaracinaceae\_unclassified* |
| 480 | Otu0691 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Glutamicibacter* |
| 481 | Otu0692 | Actinobacteriota | Actinobacteria | Micrococcales | Intrasporangiaceae | *Phycicoccus* |
| 482 | Otu0693 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Tissierella* |
| 483 | Otu0694 | Proteobacteria | Alphaproteobacteria | Acetobacterales | Acetobacteraceae | *Roseomonas* |
| 484 | Otu0695 | Actinobacteriota | Actinobacteria | Streptosporangiales | Thermomonosporaceae | *Actinomadura* |
| 485 | Otu0696 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Pseudarthrobacter* |
| 486 | Otu0698 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *Enterorhabdus* |
| 487 | Otu0702 | Chloroflexi | OLB14 | OLB14\_or | OLB14\_fa | *OLB14\_ge* |
| 488 | Otu0703 | Firmicutes | Bacilli | Bacillales | Bacillaceae | *Anoxybacillus* |
| 489 | Otu0706 | Sumerlaeota | Sumerlaeia | Sumerlaeales | Sumerlaeaceae | *Sumerlaea* |
| 490 | Otu0707 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Rhodocyclaceae | *Rhodocyclaceae\_unclassified* |
| 491 | Otu0708 | Cyanobacteria | Vampirivibrionia | Obscuribacterales | Obscuribacteraceae | *Candidatus\_Obscuribacter* |
| 492 | Otu0710 | Actinobacteriota | Acidimicrobiia | Microtrichales | Ilumatobacteraceae | *CL500-29\_marine\_group* |
| 493 | Otu0713 | Firmicutes | Bacilli | Bacillales | Planococcaceae | *Domibacillus* |
| 494 | Otu0714 | Acidobacteriota | Vicinamibacteria | Vicinamibacterales | Vicinamibacteraceae | *Vicinamibacter* |
| 495 | Otu0715 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Arthrobacter* |
| 496 | Otu0717 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Phytohabitans* |
| 497 | Otu0718 | Verrucomicrobiota | Verrucomicrobiae | Chthoniobacterales | Xiphinematobacteraceae | *Candidatus\_Xiphinematobacter* |
| 498 | Otu0720 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Hyphomicrobiaceae | *Hyphomicrobiaceae\_unclassified* |
| 499 | Otu0721 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Beijerinckiaceae | *Psychroglaciecola* |
| 500 | Otu0723 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Oxalobacteraceae | *Rugamonas* |
| 501 | Otu0725 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Sarcina* |
| 502 | Otu0726 | Bacteroidota | Bacteroidia | Flavobacteriales | Weeksellaceae | *Weeksellaceae\_ge* |
| 503 | Otu0728 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Alcaligenaceae | *Achromobacter* |
| 504 | Otu0730 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Tabrizicola* |
| 505 | Otu0731 | Firmicutes | Bacilli | Lactobacillales | Carnobacteriaceae | *Granulicatella* |
| 506 | Otu0732 | Bdellovibrionota | Bdellovibrionia | Bdellovibrionales | Bdellovibrionaceae | *Bdellovibrio* |
| 507 | Otu0733 | Actinobacteriota | Actinobacteria | Frankiales | Frankiales\_unclassified | *Frankiales\_unclassified* |
| 508 | Otu0734 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Alkaliphilus* |
| 509 | Otu0736 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Parablastomonas* |
| 510 | Otu0738 | Firmicutes | Bacilli | Bacillales | Bacillaceae | *uncultured* |
| 511 | Otu0739 | Bacteroidota | Bacteroidia | Bacteroidales | Rikenellaceae | *Rikenella* |
| 512 | Otu0741 | Planctomycetota | Planctomycetes | Planctomycetales | Planctomycetales\_unclassified | *Planctomycetales\_unclassified* |
| 513 | Otu0743 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Aureimonas* |
| 514 | Otu0744 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Taibaiella* |
| 515 | Otu0745 | Bacteroidota | Bacteroidia | Sphingobacteriales | env.OPS\_17 | *env.OPS\_17\_ge* |
| 516 | Otu0746 | Gemmatimonadota | Gemmatimonadota\_unclassified | Gemmatimonadota\_unclassified | Gemmatimonadota\_unclassified | *Gemmatimonadota\_unclassified* |
| 517 | Otu0747 | Actinobacteriota | Actinobacteria | Micrococcales | Dermabacteraceae | *Brachybacterium* |
| 518 | Otu0748 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Anaerosalibacter* |
| 519 | Otu0749 | Campilobacterota | Campylobacteria | Campylobacterales | Helicobacteraceae | *Helicobacter* |
| 520 | Otu0750 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Rhodobacter* |
| 521 | Otu0754 | Myxococcota | Polyangia | Polyangiales | Polyangiaceae | *Pajaroellobacter* |
| 522 | Otu0756 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Falsochrobactrum* |
| 523 | Otu0758 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Terrimonas* |
| 524 | Otu0759 | Myxococcota | Polyangia | Polyangiales | Polyangiaceae | *Jahnella* |
| 525 | Otu0760 | Acidobacteriota | Subgroup\_25 | Subgroup\_25\_or | Subgroup\_25\_fa | *Subgroup\_25\_ge* |
| 526 | Otu0763 | Acidobacteriota | Acidobacteriota\_unclassified | Acidobacteriota\_unclassified | Acidobacteriota\_unclassified | *Acidobacteriota\_unclassified* |
| 527 | Otu0764 | Fusobacteriota | Fusobacteriia | Fusobacteriales | Leptotrichiaceae | *Leptotrichia* |
| 528 | Otu0765 | Verrucomicrobiota | Verrucomicrobiae | Pedosphaerales | Pedosphaeraceae | *Ellin517* |
| 529 | Otu0767 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Micromonospora* |
| 530 | Otu0768 | Patescibacteria | Microgenomatia | Candidatus\_Pacebacteria | Candidatus\_Pacebacteria\_fa | *Candidatus\_Pacebacteria\_ge* |
| 531 | Otu0769 | Actinobacteriota | Actinobacteria | Micrococcales | Microbacteriaceae | *Leifsonia* |
| 532 | Otu0770 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Vibrionimonas* |
| 533 | Otu0772 | Firmicutes | Clostridia | Clostridia\_or | Gracilibacteraceae | *Gracilibacteraceae\_unclassified* |
| 534 | Otu0773 | Firmicutes | Bacilli | Thermoactinomycetales | Thermoactinomycetaceae | *Thermoflavimicrobium* |
| 535 | Otu0774 | Actinobacteriota | Acidimicrobiia | Actinomarinales | Actinomarinales\_unclassified | *Actinomarinales\_unclassified* |
| 536 | Otu0776 | Firmicutes | Bacilli | Brevibacillales | Brevibacillaceae | *Brevibacillus* |
| 537 | Otu0777 | Proteobacteria | Alphaproteobacteria | Tistrellales | Geminicoccaceae | *Candidatus\_Alysiosphaera* |
| 538 | Otu0778 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Eggerthellaceae | *Eggerthella* |
| 539 | Otu0779 | Planctomycetota | Phycisphaerae | Phycisphaerales | Phycisphaeraceae | *uncultured* |
| 540 | Otu0780 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Alcaligenaceae | *Alcaligenaceae\_ge* |
| 541 | Otu0782 | Actinobacteriota | Actinobacteria | Corynebacteriales | Dietziaceae | *Dietzia* |
| 542 | Otu0784 | Proteobacteria | Gammaproteobacteria | Pasteurellales | Pasteurellaceae | *Actinobacillus* |
| 543 | Otu0785 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Polaromonas* |
| 544 | Otu0786 | Armatimonadota | uncultured | uncultured\_or | uncultured\_fa | *uncultured\_ge* |
| 545 | Otu0788 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacterales\_unclassified | *Solirubrobacterales\_unclassified* |
| 546 | Otu0789 | Planctomycetota | Phycisphaerae | Tepidisphaerales | Tepidisphaerales\_unclassified | *Tepidisphaerales\_unclassified* |
| 547 | Otu0792 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Tardiphaga* |
| 548 | Otu0793 | Actinobacteriota | Actinobacteria | Corynebacteriales | Nocardiaceae | *Nocardiaceae\_unclassified* |
| 549 | Otu0794 | Proteobacteria | Alphaproteobacteria | Micropepsales | Micropepsaceae | *uncultured* |
| 550 | Otu0795 | Actinobacteriota | Actinobacteria | Micrococcales | Sanguibacteraceae | *Sanguibacter* |
| 551 | Otu0796 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Gemmobacter* |
| 552 | Otu0799 | Myxococcota | Polyangia | Nannocystales | Nannocystaceae | *Nannocystis* |
| 553 | Otu0800 | Actinobacteriota | Actinobacteria | Streptosporangiales | Thermomonosporaceae | *Thermomonosporaceae\_unclassified* |
| 554 | Otu0802 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Burkholderiaceae | *Ralstonia* |
| 555 | Otu0803 | Chloroflexi | Chloroflexia | Chloroflexales | Chloroflexales\_unclassified | *Chloroflexales\_unclassified* |
| 556 | Otu0805 | Actinobacteriota | Actinobacteria | Propionibacteriales | Propionibacteriaceae | *Cutibacterium* |
| 557 | Otu0809 | Actinobacteriota | Actinobacteria | Micrococcales | Cellulomonadaceae | *Cellulomonas* |
| 558 | Otu0814 | Actinobacteriota | Actinobacteria | Kineosporiales | Kineosporiaceae | *Kineosporiaceae\_unclassified* |
| 559 | Otu0815 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *uncultured* |
| 560 | Otu0817 | RCP2-54 | RCP2-54\_cl | RCP2-54\_or | RCP2-54\_fa | *RCP2-54\_ge* |
| 561 | Otu0818 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Clostridium\_sensu\_stricto\_10* |
| 562 | Otu0819 | Bacteroidota | Bacteroidia | Sphingobacteriales | Sphingobacteriales\_unclassified | *Sphingobacteriales\_unclassified* |
| 563 | Otu0823 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Paucibacter* |
| 564 | Otu0826 | Planctomycetota | Planctomycetes | Planctomycetales | Schlesneriaceae | *Schlesneria* |
| 565 | Otu0827 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Burkholderiaceae | *Cupriavidus* |
| 566 | Otu0830 | Dependentiae | Babeliae | Babeliales | Babeliales\_unclassified | *Babeliales\_unclassified* |
| 567 | Otu0832 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *Parviterribacter* |
| 568 | Otu0833 | Firmicutes | Bacilli | Bacillales | Bacillaceae | *Terribacillus* |
| 569 | Otu0835 | Actinobacteriota | Actinobacteria | Micrococcales | Promicromonosporaceae | *Promicromonosporaceae\_unclassified* |
| 570 | Otu0836 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *Patulibacter* |
| 571 | Otu0837 | Bacteroidota | Bacteroidia | Cytophagales | Hymenobacteraceae | *Hymenobacter* |
| 572 | Otu0838 | Patescibacteria | Microgenomatia | Candidatus\_Woesebacteria | Candidatus\_Woesebacteria\_fa | *Candidatus\_Woesebacteria\_ge* |
| 573 | Otu0839 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Rothia* |
| 574 | Otu0842 | Bacteroidota | Bacteroidia | Sphingobacteriales | KD3-93 | *KD3-93\_ge* |
| 575 | Otu0843 | Firmicutes | Bacilli | Paenibacillales | Paenibacillaceae | *Ammoniphilus* |
| 576 | Otu0844 | Proteobacteria | Gammaproteobacteria | Cellvibrionales | Spongiibacteraceae | *BD1-7\_clade* |
| 577 | Otu0847 | Firmicutes | Bacilli | Paenibacillales | Paenibacillaceae | *Paenibacillaceae\_unclassified* |
| 578 | Otu0850 | Myxococcota | Polyangia | Polyangiales | Phaselicystidaceae | *Phaselicystis* |
| 579 | Otu0853 | Proteobacteria | Alphaproteobacteria | Rhizobiales | D05-2 | *D05-2\_ge* |
| 580 | Otu0855 | Patescibacteria | Saccharimonadia | Saccharimonadales | S32 | *TM7* |
| 581 | Otu0857 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Nitrosomonadaceae | *mle1-7* |
| 582 | Otu0858 | Armatimonadota | Fimbriimonadia | Fimbriimonadales | Fimbriimonadaceae | *Fimbriimonadaceae\_ge* |
| 583 | Otu0859 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Aliihoeflea* |
| 584 | Otu0861 | Verrucomicrobiota | Omnitrophia | Omnitrophales | Omnitrophales\_fa | *Omnitrophales\_ge* |
| 585 | Otu0864 | Firmicutes | Bacilli | Lactobacillales | Streptococcaceae | *Lactococcus* |
| 586 | Otu0866 | Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | *Amaricoccus* |
| 587 | Otu0870 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Parasegetibacter* |
| 588 | Otu0871 | Firmicutes | Desulfotomaculia | Desulfotomaculales | Desulfotomaculales\_fa | *Desulfotomaculum* |
| 589 | Otu0872 | Chloroflexi | Anaerolineae | RBG-13-54-9 | RBG-13-54-9\_fa | *RBG-13-54-9\_ge* |
| 590 | Otu0873 | Firmicutes | Limnochordia | Limnochordales | Limnochordaceae | *Limnochordaceae\_ge* |
| 591 | Otu0876 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Sphingopyxis* |
| 592 | Otu0880 | Myxococcota | Myxococcia | Myxococcales | Myxococcaceae | *Archangium* |
| 593 | Otu0881 | Firmicutes | Bacilli | Bacillales | Bacillaceae | *Oceanobacillus* |
| 594 | Otu0882 | Actinobacteriota | Actinobacteria | Frankiales | Geodermatophilaceae | *Geodermatophilaceae\_unclassified* |
| 595 | Otu0883 | Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | *Hephaestia* |
| 596 | Otu0888 | Myxococcota | Myxococcia | Myxococcales | Myxococcaceae | *Stigmatella* |
| 597 | Otu0896 | Firmicutes | Desulfotomaculia | Desulfotomaculales | Desulfallas-Sporotomaculum | *Desulfallas-Sporotomaculum\_ge* |
| 598 | Otu0899 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Hyphomicrobiaceae | *Hyphomicrobium* |
| 599 | Otu0900 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiaceae | *Pseudochrobactrum* |
| 600 | Otu0906 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Lacibacter* |
| 601 | Otu0907 | Firmicutes | Desulfotomaculia | Desulfotomaculales | Desulfotomaculales\_fa | *Cryptanaerobacter* |
| 602 | Otu0908 | Firmicutes | Clostridia | Clostridia\_or | Gracilibacteraceae | *Lutispora* |
| 603 | Otu0910 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Burkholderiaceae | *Burkholderia-Caballeronia-Paraburkholderia* |
| 604 | Otu0911 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | *Azotobacter* |
| 605 | Otu0914 | Bacteroidota | Bacteroidia | Flavobacteriales | Weeksellaceae | *Algoriella* |
| 606 | Otu0916 | Bacteroidota | Bacteroidia | Flavobacteriales | Weeksellaceae | *Moheibacter* |
| 607 | Otu0917 | Proteobacteria | Alphaproteobacteria | Ferrovibrionales | Ferrovibrionaceae | *Ferrovibrio* |
| 608 | Otu0919 | Actinobacteriota | Actinobacteria | Frankiales | uncultured | *uncultured\_ge* |
| 609 | Otu0921 | Firmicutes | Bacilli | Staphylococcales | Gemellaceae | *Gemella* |
| 610 | Otu0923 | Firmicutes | Clostridia | Clostridiales | Clostridiaceae | *Clostridium\_sensu\_stricto\_15* |
| 611 | Otu0925 | Firmicutes | Desulfitobacteriia | Desulfitobacteriales | Desulfitobacteriaceae | *Desulfitobacterium* |
| 612 | Otu0927 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Erwiniaceae | *Erwiniaceae\_unclassified* |
| 613 | Otu0932 | Elusimicrobiota | Elusimicrobia | MVP-88 | MVP-88\_fa | *MVP-88\_ge* |
| 614 | Otu0935 | Actinobacteriota | Actinobacteria | Propionibacteriales | Nocardioidaceae | *Mumia* |
| 615 | Otu0936 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Paenarthrobacter* |
| 616 | Otu0939 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Beijerinckiaceae | *Neo-b11* |
| 617 | Otu0940 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *Caulobacteraceae\_ge* |
| 618 | Otu0941 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Peptostreptococcales-Tissierellales\_fa\_unclassified* |
| 619 | Otu0943 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Morganellaceae | *endosymbionts* |
| 620 | Otu0944 | Chloroflexi | Chloroflexia | Thermomicrobiales | Thermomicrobiaceae | *Sphaerobacter* |
| 621 | Otu0945 | Firmicutes | Bacilli | Paenibacillales | Paenibacillaceae | *Cohnella* |
| 622 | Otu0947 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Yersiniaceae | *Rahnella1* |
| 623 | Otu0949 | Firmicutes | Bacilli | Mycoplasmatales | Mycoplasmataceae | *Ureaplasma* |
| 624 | Otu0950 | Firmicutes | Bacilli | Lactobacillales | Carnobacteriaceae | *Dolosigranulum* |
| 625 | Otu0951 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *Asticcacaulis* |
| 626 | Otu0952 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Peptoniphilus* |
| 627 | Otu0953 | Bacteroidota | Bacteroidia | Bacteroidales | Tannerellaceae | *Tannerellaceae\_unclassified* |
| 628 | Otu0954 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Citrobacter* |
| 629 | Otu0956 | Firmicutes | Bacilli | Lactobacillales | Vagococcaceae | *Vagococcus* |
| 630 | Otu0957 | Firmicutes | Negativicutes | Veillonellales-Selenomonadales | Veillonellaceae | *Veillonellaceae\_ge* |
| 631 | Otu0959 | Actinobacteriota | Actinobacteria | Pseudonocardiales | Pseudonocardiaceae | *Amycolatopsis* |
| 632 | Otu0960 | Acidobacteriota | Vicinamibacteria | Vicinamibacterales | Vicinamibacteraceae | *Vicinamibacteraceae\_unclassified* |
| 633 | Otu0961 | Actinobacteriota | Actinobacteria | Micrococcales | Intrasporangiaceae | *Janibacter* |
| 634 | Otu0962 | Bacteroidota | Bacteroidia | Bacteroidales | Barnesiellaceae | *Barnesiella* |
| 635 | Otu0964 | Actinobacteriota | Actinobacteria | Frankiales | Nakamurellaceae | *Nakamurella* |
| 636 | Otu0965 | Firmicutes | D8A-2 | D8A-2\_or | D8A-2\_fa | *D8A-2\_ge* |
| 637 | Otu0967 | Actinobacteriota | Actinobacteria | Bifidobacteriales | Bifidobacteriaceae | *Gardnerella* |
| 638 | Otu0968 | Chloroflexi | Chloroflexia | Thermomicrobiales | Thermomicrobiaceae | *Thermomicrobiaceae\_unclassified* |
| 639 | Otu0970 | Patescibacteria | Saccharimonadia | Saccharimonadales | WWH38 | *WWH38\_ge* |
| 640 | Otu0972 | Actinobacteriota | Acidimicrobiia | Microtrichales | Iamiaceae | *Iamia* |
| 641 | Otu0973 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Verrucosispora* |
| 642 | Otu0974 | Firmicutes | Syntrophomonadia | Syntrophomonadales | Syntrophomonadaceae | *Syntrophomonas* |
| 643 | Otu0975 | Firmicutes | Bacilli | Lactobacillales | Carnobacteriaceae | *Carnobacteriaceae\_unclassified* |
| 644 | Otu0978 | Firmicutes | Thermovenabulia | Thermovenabulales | Thermovenabulales\_fa | *Tepidanaerobacter* |
| 645 | Otu0979 | Firmicutes | Clostridia | Clostridia\_or | Gracilibacteraceae | *Gracilibacter* |
| 646 | Otu0980 | Proteobacteria | Gammaproteobacteria | Enterobacterales | Enterobacteriaceae | *Lelliottia* |
| 647 | Otu0982 | Chloroflexi | Anaerolineae | Caldilineales | Caldilineaceae | *Caldilineaceae\_unclassified* |
| 648 | Otu0983 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Oxalobacteraceae | *Noviherbaspirillum* |
| 649 | Otu0985 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *uncultured* |
| 650 | Otu0987 | Firmicutes | Bacilli | Bacillales | Sporolactobacillaceae | *Pullulanibacillus* |
| 651 | Otu0989 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Ancylobacter* |
| 652 | Otu0994 | Bacteroidota | Bacteroidia | Flavobacteriales | Flavobacteriaceae | *Subsaxibacter* |
| 653 | Otu0995 | Actinobacteriota | Coriobacteriia | Coriobacteriales | Coriobacteriales\_Incertae\_Sedis | *Raoultibacter* |
| 654 | Otu0996 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Flavitalea* |
| 655 | Otu1000 | Firmicutes | Bacilli | Thermoactinomycetales | Thermoactinomycetaceae | *Planifilum* |
| 656 | Otu1001 | Myxococcota | Polyangia | mle1-27 | mle1-27\_fa | *mle1-27\_ge* |
| 657 | Otu1003 | Firmicutes | Clostridia | Peptostreptococcales-Tissierellales | Peptostreptococcales-Tissierellales\_fa | *Tepidimicrobium* |
| 658 | Otu1004 | Proteobacteria | Alphaproteobacteria | Rhizobiales | Xanthobacteraceae | *Pseudolabrys* |
| 659 | Otu1005 | Firmicutes | Clostridia | Lachnospirales | Lachnospiraceae | *Eisenbergiella* |
| 660 | Otu1006 | Chloroflexi | Chloroflexia | Chloroflexales | Chloroflexaceae | *Candidatus\_Chloroploca* |
| 661 | Otu1009 | Firmicutes | Bacilli | Paenibacillales | Paenibacillaceae | *Paenibacillus* |
| 662 | Otu1012 | Chloroflexi | Chloroflexia | Chloroflexales | Herpetosiphonaceae | *Herpetosiphon* |
| 663 | Otu1013 | Chloroflexi | Chloroflexia | Chloroflexales | Chloroflexaceae | *Chloronema* |
| 664 | Otu1017 | Actinobacteriota | Actinobacteria | Micrococcales | Microbacteriaceae | *Lysinimonas* |
| 665 | Otu1019 | Proteobacteria | Alphaproteobacteria | Caulobacterales | Caulobacteraceae | *uncultured* |
| 666 | Otu1030 | Actinobacteriota | Actinobacteria | Corynebacteriales | Corynebacteriaceae | *Lawsonella* |
| 667 | Otu1041 | Actinobacteriota | Actinobacteria | Frankiales | Sporichthyaceae | *Sporichthya* |
| 668 | Otu1043 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Segetibacter* |
| 669 | Otu1050 | Proteobacteria | Gammaproteobacteria | Burkholderiales | A21b | *A21b\_ge* |
| 670 | Otu1054 | Actinobacteriota | Actinobacteria | Propionibacteriales | Propionibacteriaceae | *Microlunatus* |
| 671 | Otu1057 | Desulfobacterota | Desulfuromonadia | Geobacterales | Geobacteraceae | *Geobacteraceae\_unclassified* |
| 672 | Otu1060 | Bacteroidota | Bacteroidia | Cytophagales | Cytophagaceae | *Sporocytophaga* |
| 673 | Otu1071 | Actinobacteriota | Thermoleophilia | Solirubrobacterales | Solirubrobacteraceae | *Conexibacter* |
| 674 | Otu1079 | Bacteroidota | Bacteroidia | Chitinophagales | Chitinophagaceae | *Cnuella* |
| 675 | Otu1081 | Proteobacteria | Alphaproteobacteria | Micavibrionales | uncultured | *uncultured\_ge* |
| 676 | Otu1082 | Verrucomicrobiota | Chlamydiae | Chlamydiales | Parachlamydiaceae | *Neochlamydia* |
| 677 | Otu1083 | Entotheonellaeota | Entotheonellia | Entotheonellales | Entotheonellaceae | *Entotheonellaceae\_ge* |
| 678 | Otu1090 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Krasilnikovia* |
| 679 | Otu1093 | Bacteroidota | Bacteroidia | Cytophagales | Cytophagales\_unclassified | *Cytophagales\_unclassified* |
| 680 | Otu1094 | Actinobacteriota | Actinobacteria | Micrococcales | Micrococcaceae | *Micrococcaceae\_ge* |
| 681 | Otu1102 | Cyanobacteria | Cyanobacteriia | Leptolyngbyales | Leptolyngbyaceae | *Leptolyngbyaceae\_ge* |
| 682 | Otu1103 | Cyanobacteria | Cyanobacteriia | Cyanobacteriales | uncultured | *uncultured\_ge* |
| 683 | Otu1105 | Firmicutes | Moorellia | Desulfitibacterales | Desulfitibacteraceae | *Desulfitibacter* |
| 684 | Otu1114 | Cyanobacteria | Cyanobacteriia | Cyanobacteriales | Nostocaceae | *Nostoc\_PCC-7524* |
| 685 | Otu1115 | Bacteroidota | Kapabacteria | Kapabacteriales | Kapabacteriales\_fa | *Kapabacteriales\_ge* |
| 686 | Otu1117 | Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | *Azomonas* |
| 687 | Otu1120 | Firmicutes | Symbiobacteriia | Symbiobacteriales | Symbiobacteraceae | *Symbiobacterium* |
| 688 | Otu1126 | Proteobacteria | Gammaproteobacteria | Diplorickettsiales | Diplorickettsiaceae | *uncultured* |
| 689 | Otu1133 | Actinobacteriota | Actinobacteria | 0319-7L14 | 0319-7L14\_fa | *0319-7L14\_ge* |
| 690 | Otu1135 | Actinobacteriota | Actinobacteria | Micrococcales | Promicromonosporaceae | *Cellulosimicrobium* |
| 691 | Otu1136 | Acidobacteriota | Subgroup\_5 | Subgroup\_5\_or | Subgroup\_5\_fa | *Subgroup\_5\_ge* |
| 692 | Otu1153 | Actinobacteriota | Actinobacteria | Micrococcales | Microbacteriaceae | *Herbiconiux* |
| 693 | Otu1157 | Actinobacteriota | Actinobacteria | Micromonosporales | Micromonosporaceae | *Dactylosporangium* |
| 694 | Otu1162 | Actinobacteriota | Acidimicrobiia | uncultured | uncultured\_fa | *uncultured\_ge* |
| 695 | Otu1163 | Chloroflexi | Anaerolineae | Caldilineales | Caldilineaceae | *Litorilinea* |
| 696 | Otu1166 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Neisseriaceae | *Snodgrassella* |
| 697 | Otu1183 | Patescibacteria | Parcubacteria | Candidatus\_Adlerbacteria | Candidatus\_Adlerbacteria\_fa | *Candidatus\_Adlerbacteria\_ge* |
| 698 | Otu1185 | Proteobacteria | Gammaproteobacteria | Burkholderiales | Comamonadaceae | *Rhodoferax* |
| 699 | Otu1192 | Proteobacteria | Gammaproteobacteria | Salinisphaerales | Solimonadaceae | *Polycyclovorans* |
| 700 | Otu1197 | Firmicutes | Bacilli | Lactobacillales | Carnobacteriaceae | *Trichococcus* |