## Table S5

| Genus | Indian WWTP Downstream 1 | Indian WWTP Downstream 2 | Indian WWTP Downstream 3 | Indian WWTP Discharge site | Indian WWTP Upstream 1 | Indian WWTP Upstream 2 | Swedish WWTP Downstream | Swedish WWTP Upstream |
|---|---|---|---|---|---|---|---|---|
| **Abiotrophia** | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 |
| **Acaryochloris** | 26 | 18 | 11 | 22 | 45 | 10 | 0 | 32 |
| **Acholeplasma** | 22 | 0 | 0 | 38 | 0 | 0 | 0 | 0 |
| **Acidiphilium** | 18 | 13 | 20 | 30 | 18 | 25 | 0 | 17 |
| **Acidithiobacillus** | 51 | 22 | 19 | 84 | 67 | 88 | 15 | 37 |
| **Acidobacterium** | 24 | 14 | 0 | 37 | 71 | 48 | 10 | 58 |
| **Acidothermus** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| **Acidovorax** | 110 | 61 | 67 | 254 | 190 | 144 | 95 | 168 |
| **Aciduliprofundum** | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 33 |
| **Acinetobacter** | 699 | 205 | 248 | 405 | 189 | 202 | 61 | 59 |
| **Actinobacillus** | 522 | 239 | 225 | 144 | 0 | 0 | 0 | 0 |
| **Actinosynnema** | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 |
| **Aeromonas** | 78 | 48 | 24 | 219 | 115 | 522 | 17 | 25 |
| **Agrobacterium** | 18 | 15 | 19 | 46 | 44 | 37 | 21 | 60 |
| **Akkermansia** | 14 | 0 | 15 | 21 | 11 | 30 | 10 | 99 |
| **Alcanivorax** | 14 | 11 | 0 | 24 | 0 | 20 | 0 | 36 |
| **Algoriphagus** | 157 | 89 | 142 | 167 | 214 | 56 | 39 | 185 |
| **Alicyclobacillus** | 18 | 24 | 10 | 22 | 12 | 0 | 0 | 21 |
| **Aliivibrio** | 228 | 139 | 98 | 123 | 18 | 19 | 0 | 0 |
| **Alistipes** | 106 | 46 | 69 | 142 | 70 | 109 | 16 | 32 |
| **Alkalilimnicola** | 0 | 0 | 0 | 27 | 19 | 0 | 0 | 22 |
| **Alkaliphilus** | 63 | 43 | 33 | 106 | 65 | 39 | 15 | 37 |
| **Allochromatium** | 55 | 31 | 26 | 103 | 100 | 55 | 17 | 48 |
| **Alteromonas** | 0 | 0 | 0 | 14 | 15 | 0 | 0 | 0 |
| **Anabaena** | 25 | 13 | 14 | 19 | 34 | 14 | 0 | 34 |
| **Anaerocellum** | 12 | 14 | 12 | 21 | 13 | 0 | 0 | 19 |
| **Anaerofustis** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Anaeromyxobacter** | 61 | 32 | 25 | 64 | 176 | 51 | 42 | 131 |
| **Anaerotruncus** | 18 | 0 | 0 | 14 | 14 | 0 | 0 | 0 |
| **Anoxybacillus** | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 0 |
| **Aquifex** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| **Arcanobacterium** | 0 | 0 | 0 | 35 | 0 | 0 | 0 | 0 |
| **Archaeoglobus** | 0 | 0 | 0 | 13 | 0 | 10 | 0 | 27 |
| **Arcobacter** | 294 | 32 | 115 | 427 | 343 | 68 | 0 | 45 |
| **Aromatoleum** | 36 | 26 | 18 | 66 | 42 | 46 | 24 | 89 |
| **Arthrobacter** | 0 | 14 | 0 | 21 | 31 | 10 | 10 | 21 |
| **Arthrospira** | 28 | 21 | 0 | 21 | 26 | 10 | 0 | 15 |
| **Asticcacaulis** | 15 | 0 | 0 | 17 | 0 | 14 | 0 | 20 |
| **Aurantimonas** | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 14 |
| **Azoarcus** | 38 | 23 | 15 | 67 | 44 | 47 | 20 | 75 |
| **Azorhizobium** | 0 | 0 | 0 | 12 | 12 | 12 | 0 | 14 |
| **Azotobacter** | 19 | 0 | 0 | 24 | 17 | 13 | 0 | 26 |
| **Bacillus** | 208 | 107 | 77 | 291 | 205 | 240 | 38 | 120 |
| **Bacteroides** | 1022 | 490 | 666 | 1236 | 770 | 1024 | 169 | 391 |
| **Bartonella** | 1232 | 436 | 403 | 227 | 99 | 255 | 0 | 0 |
| **Bdellovibrio** | 38 | 30 | 16 | 31 | 41 | 0 | 16 | 44 |
| **Beggiatoa** | 34 | 27 | 20 | 33 | 42 | 26 | 16 | 51 |
| **Beijerinckia** | 0 | 0 | 0 | 12 | 17 | 11 | 0 | 10 |

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|---|---|---|---|---|---|---|---|---|
| **Bermanella** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| **Beutenbergia** | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 14 |
| **Bifidobacterium** | 26 | 17 | 13 | 34 | 10 | 22 | 0 | 12 |
| **Blastopirellula** | 52 | 50 | 20 | 101 | 149 | 41 | 50 | 171 |
| **Blautia** | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 |
| **Bordetella** | 94 | 49 | 25 | 172 | 53 | 39 | 21 | 76 |
| **Brachyspira** | 14 | 0 | 14 | 21 | 10 | 0 | 0 | 11 |
| **Bradyrhizobium** | 43 | 19 | 15 | 45 | 77 | 53 | 35 | 178 |
| **Brevibacillus** | 15 | 14 | 12 | 31 | 25 | 18 | 0 | 25 |
| **Brevundimonas** | 10 | 0 | 0 | 11 | 0 | 19 | 0 | 13 |
| **Brucella** | 14 | 0 | 0 | 18 | 0 | 0 | 0 | 26 |
| **Burkholderia** | 1263 | 461 | 637 | 1585 | 360 | 255 | 133 | 339 |
| **Caldicellulosiruptor** | 19 | 12 | 12 | 19 | 0 | 0 | 0 | 0 |
| **Caminibacter** | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 |
| **Campylobacter** | 183 | 33 | 49 | 170 | 74 | 55 | 0 | 28 |
| **Candidatus Amoebophilus** | 12 | 0 | 0 | 14 | 15 | 0 | 0 | 15 |
| **Candidatus Azobacteroides** | 20 | 12 | 20 | 16 | 16 | 12 | 0 | 0 |
| **Candidatus Chloracidobacterium** | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 |
| **Candidatus Cloacamonas** | 69 | 49 | 54 | 70 | 26 | 22 | 0 | 26 |
| **Candidatus Desulforudis** | 13 | 11 | 0 | 26 | 21 | 12 | 0 | 34 |
| **Candidatus Hamiltonella** | 0 | 0 | 0 | 26 | 0 | 10 | 0 | 0 |
| **Candidatus Korarchaeum** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 17 |
| **Candidatus Koribacter** | 82 | 34 | 31 | 82 | 255 | 316 | 49 | 153 |
| **Candidatus Kuenenia** | 45 | 39 | 27 | 70 | 74 | 27 | 35 | 114 |
| **Candidatus Methanoregula** | 17 | 24 | 0 | 23 | 16 | 31 | 0 | 38 |
| **Candidatus Pelagibacter** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| **Candidatus Phytoplasma** | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 |
| **Candidatus Protochlamydia** | 0 | 20 | 0 | 41 | 0 | 14 | 0 | 11 |
| **Candidatus Solibacter** | 255 | 105 | 75 | 217 | 706 | 187 | 100 | 475 |
| **Capnocytophaga** | 41 | 27 | 36 | 61 | 33 | 27 | 14 | 33 |
| **Carboxydibrachium** | 18 | 0 | 0 | 10 | 16 | 0 | 0 | 0 |
| **Carboxydothermus** | 30 | 16 | 14 | 40 | 30 | 19 | 0 | 31 |
| **Catenulispora** | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 12 |
| **Caulobacter** | 30 | 18 | 0 | 30 | 24 | 62 | 19 | 56 |
| **Cellulomonas** | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 |
| **Cellvibrio** | 24 | 0 | 14 | 21 | 21 | 31 | 11 | 34 |
| **Cenarchaeum** | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 |
| **Chelativorans** | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 |
| **Chitinophaga** | 609 | 186 | 192 | 300 | 847 | 94 | 184 | 593 |
| **Chlamydia** | 14 | 19 | 0 | 87 | 0 | 0 | 0 | 0 |
| **Chlamydophila** | 22 | 30 | 13 | 57 | 10 | 20 | 58 | 17 |
| **Chlorobaculum** | 26 | 11 | 11 | 22 | 22 | 15 | 0 | 26 |
| **Chlorobium** | 104 | 51 | 55 | 131 | 85 | 76 | 29 | 115 |
| **Chloroflexus** | 126 | 145 | 73 | 183 | 179 | 34 | 41 | 99 |
| **Chloroherpeton** | 51 | 28 | 38 | 78 | 54 | 26 | 28 | 82 |
| **Chromobacterium** | 17 | 0 | 0 | 17 | 0 | 0 | 10 | 31 |
| **Chryseobacterium** | 97 | 34 | 43 | 159 | 104 | 72 | 38 | 67 |
| **Chthoniobacter** | 95 | 49 | 50 | 106 | 200 | 95 | 66 | 342 |
| **Citrobacter** | 933 | 315 | 411 | 362 | 52 | 62 | 0 | 0 |
| **Clostridium** | 378 | 280 | 299 | 524 | 302 | 209 | 64 | 236 |
| **Collinsella** | 0 | 0 | 0 | 14 | 13 | 0 | 0 | 0 |
| **Colwellia** | 10 | 0 | 0 | 16 | 14 | 0 | 0 | 17 |

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|---|---|---|---|---|---|---|---|---|
| **Comamonas** | 369 | 164 | 168 | 271 | 207 | 160 | 63 | 67 |
| **Congregibacter** | 15 | 0 | 0 | 14 | 11 | 0 | 0 | 22 |
| **Coprococcus** | 13 | 0 | 0 | 11 | 0 | 0 | 0 | 0 |
| **Coprothermobacter** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Corynebacterium** | 11 | 13 | 0 | 18 | 0 | 16 | 0 | 13 |
| **Coxiella** | 0 | 0 | 0 | 11 | 0 | 10 | 0 | 18 |
| **Croceibacter** | 41 | 19 | 34 | 41 | 24 | 0 | 0 | 22 |
| **Crocosphaera** | 12 | 0 | 0 | 0 | 16 | 0 | 0 | 11 |
| **Cupriavidus** | 280 | 86 | 101 | 892 | 259 | 263 | 68 | 187 |
| **Cyanothece** | 96 | 49 | 49 | 135 | 174 | 73 | 30 | 102 |
| **Cytophaga** | 160 | 51 | 60 | 114 | 161 | 34 | 62 | 193 |
| **Dechloromonas** | 149 | 62 | 47 | 158 | 113 | 235 | 125 | 232 |
| **Dehalococcoides** | 49 | 36 | 33 | 58 | 36 | 17 | 17 | 230 |
| **Deinococcus** | 0 | 22 | 10 | 27 | 39 | 17 | 10 | 31 |
| **Delftia** | 32 | 12 | 12 | 54 | 20 | 11 | 16 | 41 |
| **Denitrovibrio** | 26 | 16 | 13 | 27 | 20 | 0 | 0 | 10 |
| **Desulfatibacillum** | 69 | 60 | 48 | 86 | 73 | 70 | 26 | 119 |
| **Desulfitobacterium** | 36 | 24 | 29 | 44 | 44 | 32 | 0 | 48 |
| **Desulfobacterium** | 63 | 50 | 49 | 91 | 47 | 48 | 21 | 72 |
| **Desulfococcus** | 66 | 46 | 49 | 99 | 44 | 59 | 20 | 100 |
| **Desulfohalobium** | 0 | 0 | 13 | 16 | 18 | 18 | 0 | 19 |
| **Desulfonatronospira** | 23 | 17 | 23 | 30 | 21 | 24 | 11 | 43 |
| **Desulfotalea** | 40 | 17 | 26 | 54 | 22 | 53 | 29 | 42 |
| **Desulfotomaculum** | 41 | 36 | 32 | 77 | 47 | 24 | 19 | 62 |
| **Desulfovibrio** | 137 | 84 | 78 | 206 | 130 | 168 | 28 | 127 |
| **Desulfuromonas** | 102 | 36 | 51 | 113 | 55 | 43 | 15 | 37 |
| **Dethiobacter** | 29 | 23 | 13 | 40 | 27 | 18 | 0 | 39 |
| **Dethiosulfovibrio** | 40 | 17 | 16 | 50 | 18 | 68 | 0 | 0 |
| **Diaphorobacter** | 22 | 21 | 0 | 55 | 13 | 27 | 16 | 22 |
| **Dickeya** | 24 | 0 | 0 | 22 | 11 | 12 | 0 | 12 |
| **Dictyoglomus** | 33 | 26 | 21 | 43 | 30 | 17 | 0 | 33 |
| **Dinoroseobacter** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| **Dokdonia** | 33 | 14 | 20 | 45 | 21 | 15 | 12 | 25 |
| **Dyadobacter** | 240 | 81 | 129 | 166 | 294 | 71 | 89 | 247 |
| **Elusimicrobium** | 10 | 10 | 13 | 0 | 12 | 10 | 0 | 17 |
| **Endoriftia** | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 |
| **Enterobacter** | 27 | 12 | 15 | 32 | 16 | 52 | 0 | 0 |
| **Enterococcus** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Erwinia** | 0 | 0 | 0 | 13 | 14 | 15 | 0 | 13 |
| **Erythrobacter** | 42 | 29 | 16 | 55 | 42 | 31 | 14 | 61 |
| **Escherichia** | 819 | 391 | 327 | 565 | 258 | 280 | 28 | 315 |
| **Eubacterium** | 26 | 18 | 25 | 33 | 19 | 20 | 0 | 11 |
| **Exiguobacterium** | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 |
| **Faecalibacterium** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Fervidobacterium** | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 |
| **Fibrobacter** | 10 | 0 | 14 | 23 | 18 | 20 | 0 | 19 |
| **Flavobacterium** | 202 | 86 | 105 | 281 | 225 | 70 | 359 | 388 |
| **Francisella** | 14 | 0 | 0 | 20 | 0 | 0 | 0 | 12 |
| **Frankia** | 15 | 0 | 0 | 19 | 41 | 10 | 0 | 50 |
| **Fusobacterium** | 32 | 16 | 16 | 39 | 20 | 17 | 0 | 18 |
| **Gallibacterium** | 48 | 43 | 15 | 38 | 0 | 0 | 0 | 0 |
| **Gallionella** | 54 | 26 | 23 | 61 | 28 | 26 | 42 | 111 |

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|---|---|---|---|---|---|---|---|---|
| **Gemmata** | 72 | 34 | 22 | 75 | 163 | 57 | 29 | 160 |
| **Gemmatimonas** | 52 | 18 | 11 | 37 | 125 | 0 | 21 | 108 |
| **Geobacillus** | 62 | 60 | 40 | 88 | 63 | 31 | 12 | 69 |
| **Geobacter** | 988 | 359 | 284 | 892 | 526 | 652 | 210 | 694 |
| **Geodermatophilus** | 11 | 0 | 0 | 0 | 19 | 0 | 0 | 13 |
| **Gloeobacter** | 23 | 0 | 0 | 23 | 49 | 13 | 0 | 41 |
| **Gluconacetobacter** | 0 | 0 | 0 | 13 | 0 | 11 | 0 | 14 |
| **Gluconobacter** | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 |
| **Gramella** | 70 | 55 | 94 | 119 | 54 | 19 | 21 | 56 |
| **Haemophilus** | 118 | 47 | 60 | 31 | 15 | 12 | 0 | 0 |
| **Hafnia** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Hahella** | 14 | 10 | 0 | 26 | 18 | 14 | 0 | 38 |
| **Haliangium** | 28 | 13 | 17 | 39 | 68 | 14 | 14 | 70 |
| **Haloarcula** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Halomonas** | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 |
| **Halorhodospira** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Halothermothrix** | 17 | 26 | 21 | 26 | 30 | 13 | 10 | 32 |
| **Halothiobacillus** | 16 | 0 | 0 | 20 | 15 | 12 | 0 | 14 |
| **Helicobacter** | 65 | 14 | 16 | 88 | 17 | 17 | 0 | 19 |
| **Heliobacterium** | 14 | 12 | 18 | 35 | 26 | 10 | 0 | 33 |
| **Herminiimonas** | 20 | 0 | 0 | 17 | 10 | 0 | 23 | 36 |
| **Herpetosiphon** | 94 | 93 | 64 | 138 | 171 | 34 | 38 | 89 |
| **Hirschia** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| **Histophilus** | 0 | 0 | 0 | 14 | 11 | 0 | 0 | 0 |
| **Hoeflea** | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 12 |
| **Holdemania** | 21 | 11 | 20 | 37 | 11 | 10 | 0 | 0 |
| **Hydrogenivirga** | 21 | 0 | 12 | 28 | 24 | 0 | 0 | 19 |
| **Hyphomicrobium** | 0 | 10 | 0 | 11 | 21 | 10 | 15 | 40 |
| **Hyphomonas** | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 29 |
| **Idiomarina** | 0 | 13 | 0 | 30 | 12 | 0 | 0 | 10 |
| **Janibacter** | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 |
| **Jannaschia** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| **Janthinobacterium** | 20 | 0 | 0 | 28 | 18 | 18 | 31 | 46 |
| **Klebsiella** | 27 | 0 | 11 | 29 | 38 | 34 | 0 | 0 |
| **Kordia** | 86 | 35 | 41 | 94 | 46 | 28 | 18 | 70 |
| **Kosmotoga** | 16 | 30 | 17 | 35 | 16 | 0 | 0 | 19 |
| **Kribbella** | 0 | 0 | 0 | 17 | 13 | 0 | 0 | 0 |
| **Labrenzia** | 13 | 0 | 0 | 18 | 29 | 17 | 14 | 39 |
| **Lactobacillus** | 26 | 17 | 17 | 44 | 29 | 21 | 0 | 21 |
| **Lactococcus** | 14 | 0 | 0 | 17 | 0 | 0 | 0 | 0 |
| **Laribacter** | 18 | 0 | 10 | 19 | 22 | 20 | 12 | 0 |
| **Lawsonia** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| **Leeuwenhoekiella** | 55 | 48 | 32 | 86 | 57 | 23 | 16 | 42 |
| **Legionella** | 27 | 16 | 12 | 32 | 25 | 31 | 0 | 45 |
| **Lentisphaera** | 31 | 17 | 17 | 37 | 24 | 18 | 0 | 40 |
| **Leptospira** | 38 | 20 | 32 | 43 | 38 | 25 | 16 | 44 |
| **Leptospirillum** | 25 | 24 | 23 | 47 | 52 | 24 | 31 | 67 |
| **Leptothrix** | 27 | 10 | 14 | 34 | 36 | 15 | 32 | 191 |
| **Limnobacter** | 0 | 0 | 0 | 19 | 13 | 0 | 13 | 19 |
| **Listeria** | 18 | 0 | 0 | 0 | 11 | 0 | 0 | 0 |
| **Loktanella** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| **Lutiella** | 19 | 12 | 0 | 23 | 25 | 16 | 17 | 42 |

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|---|---|---|---|---|---|---|---|---|
| **Lyngbya** | 39 | 18 | 11 | 32 | 48 | 13 | 12 | 23 |
| **Magnetococcus** | 29 | 17 | 0 | 22 | 15 | 20 | 0 | 21 |
| **Magnetospirillum** | 66 | 25 | 22 | 99 | 54 | 62 | 21 | 73 |
| **Mannheimia** | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Maricaulis** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| **Marinobacter** | 35 | 30 | 26 | 63 | 49 | 26 | 24 | 43 |
| **Marinomonas** | 16 | 0 | 0 | 20 | 19 | 14 | 15 | 25 |
| **Mariprofundus** | 13 | 14 | 0 | 29 | 18 | 0 | 0 | 27 |
| **Meiothermus** | 32 | 24 | 19 | 48 | 60 | 14 | 15 | 38 |
| **Mesorhizobium** | 42 | 39 | 0 | 68 | 56 | 38 | 25 | 89 |
| **Methanocaldococcus** | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 17 |
| **Methanococcoides** | 41 | 21 | 13 | 31 | 0 | 0 | 0 | 25 |
| **Methanococcus** | 17 | 12 | 0 | 16 | 0 | 0 | 0 | 27 |
| **Methanoculleus** | 20 | 18 | 0 | 27 | 0 | 22 | 0 | 21 |
| **Methanohalophilus** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Methanopyrus** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| **Methanosaeta** | 45 | 76 | 30 | 84 | 17 | 100 | 0 | 31 |
| **Methanosarcina** | 75 | 82 | 40 | 95 | 52 | 52 | 24 | 91 |
| **Methanosphaerula** | 18 | 15 | 10 | 23 | 18 | 28 | 0 | 30 |
| **Methanospirillum** | 44 | 42 | 13 | 46 | 17 | 80 | 0 | 20 |
| **Methanothermobacter** | 16 | 14 | 0 | 33 | 0 | 0 | 0 | 20 |
| **Methylacidiphilum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| **Methylibium** | 20 | 0 | 12 | 30 | 24 | 13 | 23 | 191 |
| **Methylobacillus** | 79 | 25 | 24 | 83 | 10 | 13 | 14 | 27 |
| **Methylobacterium** | 51 | 30 | 26 | 74 | 126 | 78 | 50 | 85 |
| **Methylocella** | 10 | 0 | 0 | 0 | 0 | 10 | 0 | 12 |
| **Methylococcus** | 22 | 14 | 13 | 45 | 28 | 52 | 27 | 115 |
| **Methylophaga** | 444 | 123 | 121 | 380 | 90 | 128 | 30 | 39 |
| **Methylophilus** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Methylotenera** | 655 | 133 | 212 | 415 | 26 | 53 | 81 | 107 |
| **Methylovorus** | 158 | 45 | 38 | 130 | 21 | 18 | 31 | 52 |
| **Micrococcus** | 51 | 26 | 22 | 114 | 71 | 62 | 0 | 0 |
| **Microcoleus** | 40 | 24 | 18 | 40 | 62 | 12 | 12 | 47 |
| **Microcystis** | 34 | 22 | 15 | 41 | 35 | 16 | 16 | 46 |
| **Micromonospora** | 14 | 0 | 0 | 11 | 19 | 0 | 0 | 0 |
| **Microscilla** | 219 | 83 | 114 | 208 | 214 | 66 | 77 | 246 |
| **Mitsuokella** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Moorella** | 28 | 23 | 20 | 48 | 36 | 10 | 0 | 56 |
| **Moraxella** | 29 | 0 | 16 | 16 | 10 | 0 | 0 | 0 |
| **Mycobacterium** | 34 | 30 | 16 | 53 | 70 | 45 | 21 | 71 |
| **Myxococcus** | 46 | 20 | 18 | 48 | 83 | 24 | 17 | 67 |
| **Natranaerobius** | 19 | 12 | 19 | 24 | 0 | 0 | 0 | 11 |
| **Natrialba** | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 |
| **Nautilia** | 58 | 0 | 18 | 52 | 18 | 11 | 0 | 16 |
| **Neisseria** | 400 | 132 | 165 | 247 | 120 | 198 | 26 | 42 |
| **Neptuniibacter** | 0 | 0 | 0 | 16 | 0 | 13 | 0 | 13 |
| **Nitratiruptor** | 65 | 0 | 12 | 50 | 16 | 12 | 0 | 30 |
| **Nitrobacter** | 21 | 14 | 0 | 29 | 38 | 28 | 15 | 44 |
| **Nitrococcus** | 13 | 0 | 0 | 19 | 20 | 17 | 13 | 41 |
| **Nitrosococcus** | 23 | 24 | 0 | 37 | 38 | 14 | 23 | 45 |
| **Nitrosomonas** | 295 | 177 | 156 | 451 | 182 | 190 | 124 | 208 |
| **Nitrosopumilus** | 0 | 11 | 0 | 29 | 45 | 0 | 0 | 23 |

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|---|---|---|---|---|---|---|---|---|
| **Nitrosospira** | 30 | 33 | 0 | 33 | 58 | 25 | 29 | 84 |
| **Nitrospira** | 0 | 0 | 0 | 0 | 12 | 0 | 14 | 41 |
| **Nocardioides** | 11 | 0 | 0 | 17 | 25 | 0 | 0 | 15 |
| **Nodularia** | 16 | 0 | 0 | 22 | 14 | 0 | 0 | 10 |
| **Nostoc** | 53 | 19 | 23 | 65 | 101 | 23 | 27 | 53 |
| **Novosphingobium** | 36 | 17 | 14 | 36 | 30 | 39 | 17 | 69 |
| **Oceanibulbus** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| **Oceanicola** | 12 | 0 | 0 | 16 | 10 | 14 | 0 | 36 |
| **Oceanobacillus** | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Ochrobactrum** | 23 | 12 | 0 | 45 | 15 | 15 | 0 | 27 |
| **Octadecabacter** | 0 | 0 | 0 | 19 | 13 | 13 | 0 | 30 |
| **Oligotropha** | 0 | 0 | 0 | 16 | 14 | 11 | 0 | 16 |
| **Opitutus** | 76 | 41 | 38 | 90 | 146 | 58 | 39 | 169 |
| **Oxalobacter** | 19 | 0 | 0 | 16 | 0 | 11 | 0 | 0 |
| **Paenibacillus** | 52 | 32 | 33 | 86 | 55 | 27 | 0 | 60 |
| **Parabacteroides** | 264 | 115 | 156 | 319 | 171 | 276 | 49 | 109 |
| **Paracoccus** | 75 | 29 | 30 | 95 | 55 | 74 | 19 | 31 |
| **Parvibaculum** | 17 | 16 | 0 | 40 | 29 | 29 | 0 | 50 |
| **Pasteurella** | 302 | 115 | 125 | 99 | 15 | 36 | 0 | 0 |
| **Pectobacterium** | 81 | 28 | 40 | 72 | 42 | 49 | 0 | 21 |
| **Pedobacter** | 293 | 133 | 168 | 278 | 340 | 118 | 129 | 305 |
| **Pelobacter** | 301 | 116 | 166 | 244 | 101 | 128 | 41 | 179 |
| **Pelodictyon** | 33 | 18 | 17 | 30 | 12 | 27 | 10 | 30 |
| **Pelotomaculum** | 18 | 23 | 0 | 30 | 36 | 18 | 0 | 52 |
| **Persephonella** | 19 | 0 | 0 | 24 | 11 | 0 | 0 | 25 |
| **Petrotoga** | 12 | 12 | 11 | 23 | 10 | 0 | 0 | 13 |
| **Phenylobacterium** | 20 | 15 | 0 | 18 | 29 | 130 | 0 | 33 |
| **Photobacterium** | 319 | 111 | 131 | 52 | 17 | 0 | 0 | 11 |
| **Photorhabdus** | 114 | 27 | 42 | 34 | 19 | 17 | 0 | 10 |
| **Planctomyces** | 101 | 84 | 61 | 166 | 151 | 82 | 83 | 292 |
| **Planococcus** | 37 | 0 | 0 | 30 | 0 | 10 | 0 | 0 |
| **Plesiocystis** | 20 | 15 | 0 | 25 | 31 | 14 | 0 | 50 |
| **Plesiomonas** | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 |
| **Polaribacter** | 79 | 40 | 49 | 57 | 54 | 18 | 28 | 61 |
| **Polaromonas** | 97 | 40 | 35 | 170 | 147 | 93 | 130 | 247 |
| **Polynucleobacter** | 15 | 0 | 0 | 22 | 16 | 10 | 0 | 12 |
| **Porphyromonas** | 75 | 53 | 48 | 102 | 63 | 56 | 15 | 26 |
| **Prevotella** | 47 | 49 | 36 | 58 | 36 | 71 | 11 | 11 |
| **Prochlorococcus** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| **Propionibacterium** | 12 | 0 | 0 | 19 | 0 | 0 | 0 | 0 |
| **Prosthecochloris** | 18 | 0 | 0 | 21 | 19 | 0 | 0 | 17 |
| **Proteus** | 82 | 21 | 39 | 24 | 18 | 11 | 0 | 0 |
| **Providencia** | 395 | 121 | 210 | 125 | 75 | 20 | 0 | 10 |
| **Pseudoalteromonas** | 165 | 61 | 108 | 68 | 24 | 16 | 0 | 40 |
| **Pseudomonas** | 833 | 365 | 442 | 869 | 545 | 677 | 243 | 342 |
| **Pseudovibrio** | 25 | 0 | 0 | 13 | 19 | 0 | 0 | 18 |
| **Psychrobacter** | 46 | 17 | 22 | 29 | 16 | 0 | 0 | 14 |
| **Psychroflexus** | 59 | 35 | 39 | 79 | 34 | 25 | 21 | 38 |
| **Psychromonas** | 15 | 0 | 0 | 17 | 0 | 0 | 0 | 17 |
| **Pyrobaculum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| **Pyrococcus** | 0 | 0 | 0 | 12 | 13 | 0 | 0 | 29 |
| **Ralstonia** | 178 | 78 | 93 | 478 | 142 | 85 | 42 | 101 |

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|---|---|---|---|---|---|---|---|---|
| **Reinekea** | 11 | 0 | 0 | 43 | 0 | 0 | 0 | 14 |
| **Rhizobium** | 92 | 38 | 43 | 96 | 101 | 61 | 25 | 122 |
| **Rhodobacter** | 22 | 13 | 21 | 52 | 15 | 46 | 31 | 121 |
| **Rhodococcus** | 0 | 12 | 0 | 18 | 28 | 13 | 19 | 34 |
| **Rhodoferax** | 34 | 15 | 28 | 77 | 58 | 27 | 89 | 261 |
| **Rhodopirellula** | 28 | 39 | 31 | 54 | 84 | 31 | 32 | 138 |
| **Rhodopseudomonas** | 33 | 21 | 14 | 46 | 62 | 44 | 33 | 112 |
| **Rhodospirillum** | 25 | 18 | 0 | 39 | 48 | 46 | 11 | 47 |
| **Rhodothermus** | 63 | 38 | 38 | 82 | 91 | 36 | 32 | 72 |
| **Rickettsia** | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Robiginitalea** | 54 | 25 | 33 | 60 | 48 | 18 | 16 | 31 |
| **Roseburia** | 28 | 30 | 14 | 33 | 15 | 0 | 0 | 0 |
| **Roseiflexus** | 163 | 151 | 92 | 221 | 277 | 62 | 31 | 146 |
| **Roseobacter** | 23 | 17 | 13 | 42 | 27 | 28 | 20 | 50 |
| **Roseovarius** | 16 | 0 | 0 | 23 | 17 | 16 | 13 | 52 |
| **Rubrobacter** | 26 | 0 | 0 | 21 | 83 | 10 | 0 | 32 |
| **Ruegeria** | 0 | 0 | 0 | 14 | 0 | 15 | 0 | 24 |
| **Ruminococcus** | 22 | 19 | 13 | 38 | 20 | 20 | 0 | 11 |
| **Saccharophagus** | 15 | 0 | 13 | 26 | 15 | 15 | 0 | 23 |
| **Saccharopolyspora** | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 13 |
| **Sagittula** | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 13 |
| **Salinibacter** | 18 | 13 | 0 | 38 | 23 | 0 | 0 | 13 |
| **Salinispora** | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 |
| **Salmonella** | 286 | 122 | 111 | 171 | 153 | 75 | 10 | 0 |
| **Sebaldella** | 13 | 0 | 10 | 13 | 0 | 0 | 0 | 0 |
| **Selenomonas** | 26 | 22 | 0 | 53 | 15 | 17 | 0 | 0 |
| **Serratia** | 12 | 0 | 0 | 13 | 11 | 0 | 0 | 0 |
| **Shewanella** | 109 | 52 | 45 | 204 | 94 | 309 | 23 | 99 |
| **Shigella** | 47 | 14 | 16 | 28 | 14 | 15 | 0 | 0 |
| **Sideroxydans** | 35 | 21 | 14 | 44 | 32 | 21 | 72 | 143 |
| **Sinorhizobium** | 20 | 16 | 12 | 37 | 44 | 43 | 0 | 42 |
| **Sorangium** | 60 | 26 | 17 | 61 | 124 | 36 | 26 | 116 |
| **Sphaerobacter** | 58 | 69 | 41 | 98 | 142 | 21 | 25 | 77 |
| **Sphingobacterium** | 164 | 66 | 84 | 177 | 118 | 55 | 52 | 118 |
| **Sphingobium** | 18 | 0 | 10 | 30 | 12 | 23 | 0 | 0 |
| **Sphingomonas** | 82 | 43 | 22 | 73 | 111 | 90 | 16 | 74 |
| **Sphingopyxis** | 39 | 14 | 12 | 28 | 25 | 34 | 11 | 39 |
| **Spirosoma** | 234 | 85 | 121 | 192 | 301 | 76 | 103 | 267 |
| **Stackebrandtia** | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 |
| **Staphylococcus** | 47 | 22 | 0 | 40 | 15 | 12 | 0 | 0 |
| **Stenotrophomonas** | 44 | 108 | 14 | 53 | 18 | 45 | 61 | 82 |
| **Stigmatella** | 46 | 23 | 14 | 46 | 73 | 26 | 14 | 78 |
| **Streptococcus** | 38 | 28 | 24 | 52 | 35 | 21 | 0 | 17 |
| **Streptomyces** | 52 | 26 | 22 | 61 | 91 | 37 | 16 | 72 |
| **Streptosporangium** | 0 | 12 | 0 | 21 | 30 | 10 | 0 | 25 |
| **Subdoligranulum** | 17 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| **Sulfitobacter** | 14 | 0 | 19 | 32 | 13 | 40 | 0 | 16 |
| **Sulfolobus** | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 13 |
| **Sulfurihydrogenibium** | 22 | 17 | 11 | 19 | 19 | 13 | 10 | 15 |
| **Sulfurimonas** | 296 | 32 | 60 | 256 | 35 | 36 | 11 | 150 |
| **Sulfurospirillum** | 120 | 18 | 22 | 112 | 106 | 48 | 0 | 24 |
| **Sulfurovum** | 94 | 12 | 30 | 84 | 15 | 30 | 0 | 35 |

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|---|---|---|---|---|---|---|---|---|
| **Symbiobacterium** | 19 | 14 | 21 | 44 | 34 | 0 | 0 | 20 |
| **Synechococcus** | 55 | 40 | 32 | 63 | 81 | 52 | 14 | 71 |
| **Synechocystis** | 14 | 0 | 0 | 17 | 17 | 0 | 0 | 13 |
| **Syntrophobacter** | 76 | 72 | 48 | 104 | 101 | 67 | 46 | 152 |
| **Syntrophomonas** | 16 | 17 | 10 | 25 | 20 | 14 | 0 | 27 |
| **Syntrophus** | 121 | 107 | 100 | 191 | 69 | 144 | 38 | 176 |
| **Teredinibacter** | 0 | 0 | 12 | 17 | 0 | 12 | 0 | 20 |
| **Thauera** | 60 | 30 | 22 | 108 | 58 | 89 | 26 | 74 |
| **Thermanaerovibrio** | 28 | 17 | 13 | 50 | 0 | 71 | 0 | 0 |
| **Thermoanaerobacter** | 42 | 36 | 32 | 58 | 52 | 22 | 10 | 55 |
| **Thermoanaerobacterium** | 22 | 14 | 10 | 23 | 17 | 12 | 0 | 15 |
| **Thermobaculum** | 55 | 46 | 42 | 86 | 78 | 29 | 10 | 66 |
| **Thermococcus** | 17 | 30 | 21 | 36 | 21 | 11 | 0 | 70 |
| **Thermodesulfovibrio** | 10 | 22 | 0 | 35 | 31 | 16 | 19 | 88 |
| **Thermofilum** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| **Thermomicrobium** | 24 | 40 | 23 | 68 | 62 | 15 | 0 | 31 |
| **Thermomonospora** | 0 | 0 | 0 | 10 | 10 | 0 | 0 | 15 |
| **Thermoplasma** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| **Thermosinus** | 24 | 22 | 20 | 32 | 41 | 36 | 0 | 47 |
| **Thermosipho** | 0 | 0 | 11 | 24 | 0 | 0 | 0 | 0 |
| **Thermotoga** | 30 | 19 | 20 | 47 | 16 | 16 | 0 | 41 |
| **Thermus** | 15 | 12 | 0 | 21 | 26 | 10 | 0 | 14 |
| **Thioalkalivibrio** | 17 | 25 | 11 | 52 | 28 | 28 | 22 | 74 |
| **Thiobacillus** | 331 | 155 | 165 | 212 | 61 | 58 | 31 | 67 |
| **Thiomicrospira** | 11 | 0 | 0 | 14 | 0 | 0 | 0 | 0 |
| **Tolumonas** | 14 | 0 | 0 | 19 | 14 | 47 | 0 | 10 |
| **Treponema** | 32 | 17 | 16 | 30 | 17 | 13 | 0 | 24 |
| **Trichodesmium** | 0 | 0 | 0 | 13 | 20 | 0 | 0 | 11 |
| **Variovorax** | 33 | 14 | 0 | 52 | 43 | 19 | 32 | 123 |
| **Verminephrobacter** | 29 | 12 | 14 | 53 | 37 | 41 | 18 | 55 |
| **Verrucomicrobium** | 89 | 37 | 57 | 128 | 95 | 91 | 56 | 375 |
| **Vibrio** | 439 | 184 | 191 | 230 | 91 | 107 | 31 | 54 |
| **Victivallis** | 20 | 25 | 24 | 29 | 19 | 25 | 0 | 28 |
| **Wolinella** | 47 | 0 | 10 | 23 | 0 | 11 | 0 | 25 |
| **Xanthobacter** | 10 | 0 | 0 | 16 | 20 | 15 | 0 | 26 |
| **Xanthomonas** | 75 | 48 | 40 | 152 | 105 | 169 | 58 | 95 |
| **Xylella** | 54 | 26 | 36 | 64 | 70 | 49 | 23 | 21 |
| **Yersinia** | 169 | 86 | 85 | 116 | 55 | 42 | 12 | 25 |
| **Zymomonas** | 50 | 21 | 19 | 80 | 33 | 37 | 0 | 0 |