## Increasing away from stream inlet

| Phylum | Class | Order | Family | Genus | intercept | slope | pval |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Actinobacteria | Actinobacteria | Actinomycetales | Actinomycetales\_unclassified | Actinomycetales\_unclassified | 8232.441 | -16.479 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | Actinomycetales\_unclassified | Actinomycetales\_unclassified | 8347.728 | -16.395 | 0.000 |
| Bacteroidetes | Cytophagia | Cytophagales | Cyclobacteriaceae | Algoriphagus | 6329.603 | -12.252 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | Microbacteriaceae | Microbacteriaceae\_unclassified | 5628.885 | -11.967 | 0.000 |
| Planctomycetes | Planctomycetia | Planctomycetales | Planctomycetaceae | Planctomycetaceae\_unclassified | 4477.193 | -10.785 | 0.000 |
| Actinobacteria | Actinobacteria | Actinobacteria\_unclassified | Actinobacteria\_unclassified | Actinobacteria\_unclassified | 4543.005 | -10.093 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | Actinomycetales\_unclassified | Actinomycetales\_unclassified | 4240.564 | -6.974 | 0.002 |
| Actinobacteria | Actinobacteria | Actinomycetales | Microbacteriaceae | Microbacteriaceae\_unclassified | 2800.559 | -5.383 | 0.001 |
| Verrucomicrobia | Spartobacteria | Spartobacteria\_unclassified | Spartobacteria\_unclassified | Spartobacteria\_unclassified | 2156.510 | -4.499 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | Actinomycetales\_unclassified | Actinomycetales\_unclassified | 2958.285 | -4.452 | 0.004 |
| Proteobacteria | Alphaproteobacteria | Rhodospirillales | Acetobacteraceae | Roseomonas | 1692.109 | -3.906 | 0.000 |
| Bacteroidetes | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | 1971.592 | -3.869 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | Actinomycetales\_unclassified | Actinomycetales\_unclassified | 1627.906 | -3.443 | 0.000 |
| Proteobacteria | Betaproteobacteria | Betaproteobacteria\_unclassified | Betaproteobacteria\_unclassified | Betaproteobacteria\_unclassified | 4416.590 | -3.162 | 0.561 |
| Bacteroidetes | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | 2393.910 | -2.893 | 0.237 |
| Proteobacteria | Proteobacteria\_unclassified | Proteobacteria\_unclassified | Proteobacteria\_unclassified | Proteobacteria\_unclassified | 3068.707 | -2.215 | 0.535 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Polaromonas | 322.667 | -0.675 | 0.004 |
| Bacteroidetes | Sphingobacteriia | Sphingobacteriales | Saprospiraceae | Saprospiraceae\_unclassified | 428.457 | -0.642 | 0.022 |
| Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | Sphingomonadaceae\_unclassified | 399.686 | -0.594 | 0.098 |
| Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | Rhodobacter | 286.694 | -0.568 | 0.005 |
| Bacteria\_unclassified | Bacteria\_unclassified | Bacteria\_unclassified | Bacteria\_unclassified | Bacteria\_unclassified | 231.020 | -0.450 | 0.021 |
| Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | Sphingorhabdus | 178.124 | -0.401 | 0.000 |
| Bacteroidetes | Sphingobacteriia | Sphingobacteriales | Chitinophagaceae | Sediminibacterium | 113.879 | -0.182 | 0.002 |
| Bacteroidetes | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | Bacteroidetes\_unclassified | 820.517 | -0.122 | 0.875 |
| Proteobacteria | Alphaproteobacteria | Rhizobiales | Rhizobiales\_unclassified | Rhizobiales\_unclassified | 84.519 | -0.116 | 0.421 |
| Firmicutes | Clostridia | Clostridiales | Clostridiales\_Incertae\_Sedis\_XI | Finegoldia | 26.832 | -0.062 | 0.490 |
| Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadaceae | Stenotrophomonas | 11.612 | -0.027 | 0.466 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Moraxellaceae | Acinetobacter | 12.095 | -0.021 | 0.675 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Burkholderiales\_unclassified | Burkholderiales\_unclassified | 21.496 | -0.016 | 0.612 |
| Bacteroidetes | Sphingobacteriia | Sphingobacteriales | Chitinophagaceae | Chitinophagaceae\_unclassified | 9.954 | -0.015 | 0.058 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Comamonadaceae\_unclassified | 6.735 | -0.007 | 0.029 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Oxalobacteraceae | Oxalobacteraceae\_unclassified | 5.715 | -0.000 | 0.991 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Comamonadaceae\_unclassified | 4.145 | -0.000 | 0.974 |

## Decreasing away from stream inlet

| Phylum | Class | Order | Family | Genus | intercept | slope | pval |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Proteobacteria | Gammaproteobacteria | Methylococcales | Methylococcaceae | Methylococcaceae\_unclassified | 121.885 | 1.927 | 0.034 |
| Verrucomicrobia | Spartobacteria | Spartobacteria\_unclassified | Spartobacteria\_unclassified | Spartobacteria\_unclassified | 61.225 | 1.625 | 0.113 |
| Verrucomicrobia | Verrucomicrobia\_unclassified | Verrucomicrobia\_unclassified | Verrucomicrobia\_unclassified | Verrucomicrobia\_unclassified | 162.423 | 1.463 | 0.360 |
| Verrucomicrobia | Opitutae | Opitutae\_unclassified | Opitutae\_unclassified | Opitutae\_unclassified | 1508.452 | 0.966 | 0.569 |
| Actinobacteria | Actinobacteria | Actinomycetales | Micrococcaceae | Micrococcus | -41.089 | 0.764 | 0.072 |
| Bacteroidetes | Cytophagia | Cytophagales | Cytophagaceae | Cytophagaceae\_unclassified | 883.912 | 0.622 | 0.823 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Alcaligenaceae | Alcaligenaceae\_unclassified | 1720.294 | 0.255 | 0.948 |
| Bacteroidetes | Sphingobacteriia | Sphingobacteriales | Sphingobacteriaceae | Pedobacter | -12.238 | 0.248 | 0.052 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | -11.548 | 0.206 | 0.023 |
| Actinobacteria | Actinobacteria | Actinomycetales | Micrococcaceae | Arthrobacter | -8.261 | 0.169 | 0.055 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Oxalobacteraceae | Janthinobacterium | -6.711 | 0.134 | 0.047 |
| Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | Sphingomonas | -13.624 | 0.114 | 0.101 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | -5.325 | 0.106 | 0.063 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Comamonadaceae\_unclassified | -5.764 | 0.095 | 0.057 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Comamonas | 46.055 | 0.076 | 0.396 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Comamonadaceae\_unclassified | 0.916 | 0.017 | 0.034 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | -0.605 | 0.012 | 0.061 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Burkholderiaceae | Burkholderia | -0.201 | 0.005 | 0.064 |
| Proteobacteria | Betaproteobacteria | Neisseriales | Neisseriaceae | Neisseriaceae\_unclassified | 9.535 | 0.004 | 0.930 |
| Actinobacteria | Actinobacteria | Solirubrobacterales | Solirubrobacteraceae | Solirubrobacter | 0.008 | 0.001 | 0.046 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Burkholderiales\_unclassified | Burkholderiales\_unclassified | 0.037 | 0.000 | 0.135 |