## Increasing away from stream inlet

| Phylum | Class | Order | Family | Genus | intercept | slope | pval |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Actinobacteria | Actinobacteria | Actinomycetales | unclassified | unclassified | 10724.947 | -23.693 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | unclassified | unclassified | 9321.070 | -18.858 | 0.000 |
| Bacteroidetes | Sphingobacteria | Sphingobacteriales | Cyclobacteriaceae | Algoriphagus | 6902.301 | -13.548 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | Microbacteriaceae | unclassified | 6433.045 | -13.330 | 0.000 |
| Actinobacteria | Actinobacteria | unclassified | unclassified | unclassified | 5259.707 | -11.756 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | unclassified | unclassified | 4686.024 | -7.985 | 0.001 |
| Actinobacteria | Actinobacteria | Actinomycetales | Microbacteriaceae | unclassified | 2420.830 | -4.756 | 0.000 |
| Actinobacteria | Actinobacteria | Actinomycetales | unclassified | unclassified | 2393.945 | -4.319 | 0.000 |
| unclassified | unclassified | unclassified | unclassified | unclassified | 2108.434 | -3.990 | 0.003 |
| Bacteroidetes | Flavobacteria | Flavobacteriales | Flavobacteriaceae | Flavobacterium | 2163.332 | -3.822 | 0.028 |
| Proteobacteria | Betaproteobacteria | unclassified | unclassified | unclassified | 3211.430 | -2.302 | 0.539 |
| Bacteroidetes | Sphingobacteria | Sphingobacteriales | unclassified | unclassified | 1104.524 | -1.792 | 0.019 |
| unclassified | unclassified | unclassified | unclassified | unclassified | 2215.192 | -1.761 | 0.479 |
| Bacteroidetes | Sphingobacteria | Sphingobacteriales | Saprospiraceae | unclassified | 466.816 | -0.736 | 0.012 |
| Proteobacteria | Alphaproteobacteria | Rhodobacterales | Rhodobacteraceae | Rhodobacter | 315.951 | -0.633 | 0.004 |
| Bacteroidetes | unclassified | unclassified | unclassified | unclassified | 518.411 | -0.267 | 0.531 |
| Proteobacteria | Alphaproteobacteria | Rhizobiales | unclassified | unclassified | 143.395 | -0.205 | 0.393 |
| Bacteroidetes | Sphingobacteria | Sphingobacteriales | Chitinophagaceae | Sediminibacterium | 119.787 | -0.192 | 0.001 |
| Firmicutes | Clostridia | Clostridiales | Clostridiales\_Incertae\_Sedis\_XI | Finegoldia | 29.742 | -0.068 | 0.498 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | unclassified | 29.833 | -0.040 | 0.152 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | Comamonas | 30.208 | -0.031 | 0.098 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Moraxellaceae | Acinetobacter | 13.509 | -0.022 | 0.696 |
| Proteobacteria | Gammaproteobacteria | Xanthomonadales | Xanthomonadaceae | Stenotrophomonas | 8.948 | -0.021 | 0.444 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | unclassified | 4.345 | -0.002 | 0.458 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | unclassified | 4.027 | -0.002 | 0.401 |

## Decreasing away from stream inlet

| Phylum | Class | Order | Family | Genus | intercept | slope | pval |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Firmicutes | Bacilli | Bacillales | Bacillaceae\_1 | Bacillus | -186.025 | 3.610 | 0.050 |
| Proteobacteria | Gammaproteobacteria | unclassified | unclassified | unclassified | 152.361 | 1.569 | 0.041 |
| unclassified | unclassified | unclassified | unclassified | unclassified | 959.651 | 1.296 | 0.398 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Comamonadaceae | unclassified | 178.523 | 0.873 | 0.073 |
| Bacteroidetes | Sphingobacteria | Sphingobacteriales | Cytophagaceae | unclassified | 956.713 | 0.565 | 0.846 |
| Proteobacteria | Gammaproteobacteria | Enterobacteriales | Enterobacteriaceae | Yersinia | -26.635 | 0.560 | 0.047 |
| Actinobacteria | Actinobacteria | Actinomycetales | Micrococcaceae | Micrococcus | -40.572 | 0.461 | 0.063 |
| Bacteroidetes | unclassified | unclassified | unclassified | unclassified | 384.626 | 0.303 | 0.801 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | -11.770 | 0.221 | 0.058 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | -11.485 | 0.210 | 0.027 |
| Actinobacteria | Actinobacteria | Actinomycetales | Micrococcaceae | Arthrobacter | -8.922 | 0.183 | 0.057 |
| Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | Sphingomonas | -12.539 | 0.106 | 0.098 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Oxalobacteraceae | Janthinobacterium | -3.963 | 0.080 | 0.049 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Oxalobacteraceae | Duganella | -2.381 | 0.056 | 0.066 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | -1.135 | 0.023 | 0.067 |
| Bacteroidetes | Flavobacteria | Flavobacteriales | Flavobacteriaceae | Flavobacterium | -0.831 | 0.020 | 0.048 |
| Actinobacteria | Actinobacteria | Solirubrobacterales | unclassified | unclassified | 0.704 | 0.016 | 0.093 |
| Bacteroidetes | Sphingobacteria | Sphingobacteriales | Sphingobacteriaceae | Mucilaginibacter | -0.620 | 0.013 | 0.057 |
| Firmicutes | Bacilli | Bacillales | Planococcaceae | Lysinibacillus | -1.262 | 0.011 | 0.092 |
| Acidobacteria | Acidobacteria\_Gp4 | Acidobacteria\_Gp4\_order\_incertae\_sedis | Acidobacteria\_Gp4\_family\_incertae\_sedis | Gp4 | -0.077 | 0.007 | 0.026 |
| Proteobacteria | Betaproteobacteria | Burkholderiales | Burkholderiaceae | Burkholderia | -0.187 | 0.004 | 0.067 |
| Proteobacteria | Betaproteobacteria | unclassified | unclassified | unclassified | 10.974 | 0.003 | 0.955 |
| Proteobacteria | Gammaproteobacteria | Pseudomonadales | Pseudomonadaceae | Pseudomonas | 1.630 | 0.002 | 0.769 |
| Actinobacteria | Actinobacteria | Solirubrobacterales | Solirubrobacteraceae | Solirubrobacter | 0.018 | 0.001 | 0.097 |
| Proteobacteria | Gammaproteobacteria | unclassified | unclassified | unclassified | 0.003 | 0.001 | 0.167 |
| Acidobacteria | Acidobacteria\_Gp6 | Acidobacteria\_Gp6\_order\_incertae\_sedis | Acidobacteria\_Gp6\_family\_incertae\_sedis | Gp6 | -0.028 | 0.000 | 0.033 |
| Proteobacteria | Alphaproteobacteria | Rhizobiales | Bradyrhizobiaceae | Bradyrhizobium | -0.010 | 0.000 | 0.060 |
| Verrucomicrobia | Spartobacteria | Spartobacteria\_order\_incertae\_sedis | Spartobacteria\_family\_incertae\_sedis | Spartobacteria\_genera\_incertae\_sedis | -0.006 | 0.000 | 0.087 |
| Proteobacteria | Deltaproteobacteria | Myxococcales | unclassified | unclassified | -0.006 | 0.000 | 0.087 |
| Proteobacteria | Alphaproteobacteria | Sphingomonadales | Sphingomonadaceae | unclassified | 0.030 | 0.000 | 0.520 |
| Firmicutes | Bacilli | Bacillales | unclassified | unclassified | 0.013 | 0.000 | 0.465 |
| Acidobacteria | Acidobacteria\_Gp1 | Acidobacteria\_Gp1\_order\_incertae\_sedis | Acidobacteria\_Gp1\_family\_incertae\_sedis | Gp1 | -0.003 | 0.000 | 0.281 |