

Table S1. Total number of bacterial OTUs detected by PhyloChip in Inlet and Marsh sediments in all phyla.

| Phylum | Inlet 0-2 cm | | | Inlet 8-10 cm | | | Marsh 0-2 cm | | | Marsh 8-10 cm | | |
|-------------------------|--------------|------|------|---------------|------|------|--------------|------|------|---------------|------|------|
| | June | July | Sept | June | July | Sept | June | July | Sept | June | July | Sept |
| ABY1_OD1 | 2 | 4 | 5 | 3 | 3 | 4 | 0 | 5 | 3 | 2 | 6 | 4 |
| AC1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| <i>Acidobacteria</i> | 60 | 201 | 161 | 88 | 98 | 105 | 60 | 183 | 68 | 81 | 173 | 114 |
| <i>Actinobacteria</i> | 231 | 734 | 603 | 284 | 329 | 410 | 229 | 770 | 452 | 265 | 657 | 444 |
| AD3 | 0 | 3 | 3 | 0 | 0 | 3 | 2 | 3 | 3 | 1 | 4 | 1 |
| <i>Aquificae</i> | 5 | 8 | 10 | 9 | 9 | 8 | 4 | 6 | 7 | 4 | 8 | 8 |
| <i>Armatimonadetes</i> | 1 | 13 | 8 | 2 | 2 | 6 | 2 | 11 | 3 | 1 | 15 | 5 |
| <i>Bacteroidetes</i> | 185 | 488 | 555 | 179 | 204 | 134 | 139 | 689 | 75 | 158 | 445 | 154 |
| BH1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| BRC1 | 0 | 4 | 3 | 1 | 2 | 2 | 1 | 3 | 1 | 3 | 4 | 3 |
| <i>Caldiserica</i> | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| CCM11b | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| CD12 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| <i>Chlamydiae</i> | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| <i>Chlorobi</i> | 5 | 15 | 17 | 11 | 12 | 12 | 3 | 17 | 9 | 8 | 19 | 12 |
| <i>Chloroflexi</i> | 46 | 139 | 99 | 68 | 71 | 79 | 61 | 158 | 73 | 73 | 169 | 100 |
| <i>Chrysiogenetes</i> | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| <i>Cyanobacteria</i> | 51 | 158 | 122 | 70 | 75 | 52 | 47 | 154 | 36 | 39 | 130 | 76 |
| <i>Deferribacteres</i> | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 4 | 3 |
| <i>Dictyoglomi</i> | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 2 | 1 |
| <i>Elusimicrobia</i> | 0 | 9 | 7 | 1 | 1 | 3 | 0 | 6 | 2 | 0 | 8 | 3 |
| EM3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| <i>Fibrobacteres</i> | 1 | 8 | 8 | 2 | 1 | 3 | 1 | 9 | 2 | 1 | 6 | 3 |
| <i>Firmicutes</i> | 150 | 830 | 1262 | 276 | 312 | 975 | 117 | 1050 | 1560 | 157 | 1013 | 787 |
| <i>Bacilli</i> | 52 | 246 | 514 | 88 | 118 | 461 | 50 | 298 | 714 | 51 | 299 | 330 |
| <i>Clostridia</i> | 98 | 584 | 748 | 188 | 194 | 514 | 67 | 752 | 846 | 106 | 714 | 457 |
| <i>Fusobacteria</i> | 10 | 27 | 16 | 14 | 8 | 5 | 13 | 32 | 2 | 2 | 29 | 3 |
| GAL15 | 1 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 2 |
| <i>Gemmatimonadetes</i> | 26 | 66 | 62 | 33 | 38 | 37 | 15 | 58 | 29 | 29 | 63 | 45 |
| GN02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GN04 | 1 | 6 | 5 | 3 | 6 | 5 | 1 | 7 | 3 | 3 | 8 | 5 |
| GN06 | 1 | 4 | 1 | 2 | 2 | 2 | 2 | 4 | 1 | 2 | 4 | 2 |
| GN1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GN12 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| GOUTA4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HDBW-WB69 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 |
| Hyd24-12 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 1 |
| KSB1 | 2 | 3 | 2 | 4 | 2 | 2 | 0 | 3 | 2 | 3 | 2 | 2 |
| LCP-89 | 0 | 5 | 5 | 4 | 4 | 4 | 1 | 2 | 1 | 5 | 4 | 5 |
| LD1 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 2 | 0 |
| <i>Lentisphaerae</i> | 6 | 13 | 9 | 8 | 8 | 8 | 7 | 11 | 5 | 7 | 13 | 9 |
| MD2896-B26 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| MSBL6 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 1 | 3 | 3 | 2 |
| MVP-15 | 1 | 3 | 3 | 2 | 3 | 3 | 1 | 4 | 4 | 1 | 4 | 3 |
| NC10 | 4 | 9 | 4 | 6 | 6 | 5 | 4 | 9 | 5 | 4 | 7 | 7 |
| <i>Nitrospirae</i> | 5 | 18 | 14 | 11 | 9 | 9 | 4 | 20 | 3 | 5 | 19 | 12 |
| NKB19 | 2 | 10 | 9 | 6 | 7 | 5 | 2 | 11 | 3 | 5 | 11 | 8 |

Table S1. (continued)

| Phylum | Inlet 0-2 cm | | | Inlet 8-10 cm | | | Marsh 0-2 cm | | | Marsh 8-10 cm | | |
|------------------------------------|--------------|-------------|-------------|---------------|-------------|-------------|--------------|-------------|-------------|---------------|-------------|-------------|
| | June | July | Sept | June | July | Sept | June | July | Sept | June | July | Sept |
| OP1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| OP11 | 1 | 1 | 2 | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 |
| OP3 | 4 | 8 | 8 | 6 | 7 | 7 | 4 | 7 | 5 | 4 | 8 | 6 |
| OP8 | 3 | 6 | 8 | 3 | 5 | 5 | 3 | 6 | 1 | 6 | 9 | 8 |
| OP9 | 3 | 6 | 7 | 3 | 3 | 3 | 2 | 6 | 4 | 4 | 10 | 6 |
| PAUC34f | 1 | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| <i>Planctomycetes</i> | 76 | 166 | 117 | 90 | 85 | 79 | 74 | 157 | 45 | 77 | 147 | 97 |
| <i>Proteobacteria</i> | 1140 | 3196 | 3843 | 1441 | 1560 | 1719 | 713 | 3625 | 1019 | 1084 | 2439 | 1684 |
| <i>Alphaproteobacteria</i> | 151 | 720 | 820 | 154 | 138 | 332 | 113 | 903 | 206 | 108 | 457 | 312 |
| <i>Betaproteobacteria</i> | 145 | 411 | 487 | 161 | 182 | 278 | 109 | 452 | 249 | 124 | 320 | 261 |
| <i>Deltaproteobacteria</i> | 164 | 560 | 438 | 244 | 270 | 278 | 159 | 595 | 172 | 209 | 567 | 318 |
| <i>Epsilonproteobacteria</i> | 36 | 54 | 107 | 88 | 98 | 89 | 44 | 90 | 27 | 84 | 104 | 90 |
| <i>Gammaproteobacteria</i> | 642 | 1446 | 1983 | 792 | 869 | 740 | 288 | 1577 | 364 | 558 | 986 | 699 |
| Unclassified <i>Proteobacteria</i> | 0 | 1 | 4 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 1 | 1 |
| <i>Zetaproteobacteria</i> | 2 | 4 | 4 | 2 | 2 | 2 | 0 | 5 | 1 | 1 | 4 | 3 |
| SAR406 | 4 | 26 | 20 | 12 | 13 | 17 | 5 | 25 | 15 | 10 | 24 | 19 |
| SBR1093 | 0 | 1 | 4 | 1 | 0 | 1 | 1 | 4 | 1 | 2 | 4 | 1 |
| SC4 | 2 | 3 | 3 | 2 | 2 | 3 | 0 | 3 | 2 | 2 | 3 | 3 |
| SM2F11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SPAM | 3 | 4 | 6 | 2 | 2 | 5 | 2 | 6 | 5 | 3 | 6 | 5 |
| <i>Spirochaetes</i> | 16 | 67 | 64 | 31 | 36 | 44 | 19 | 65 | 35 | 20 | 73 | 43 |
| SR1 | 2 | 4 | 3 | 3 | 4 | 4 | 2 | 4 | 4 | 2 | 4 | 4 |
| <i>Synergistetes</i> | 3 | 10 | 11 | 4 | 6 | 6 | 3 | 11 | 6 | 2 | 11 | 7 |
| <i>Tenericutes</i> | 8 | 59 | 68 | 18 | 19 | 53 | 12 | 81 | 68 | 17 | 72 | 39 |
| TG3 | 0 | 5 | 6 | 3 | 3 | 4 | 1 | 4 | 1 | 4 | 6 | 4 |
| <i>Thermi</i> | 3 | 10 | 9 | 4 | 4 | 8 | 4 | 8 | 9 | 4 | 10 | 11 |
| <i>Thermodesulfobacteria</i> | 1 | 4 | 3 | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 4 | 4 |
| <i>Thermotogae</i> | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 3 | 2 |
| TK-SH1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TM6 | 3 | 9 | 5 | 4 | 4 | 3 | 3 | 9 | 4 | 4 | 13 | 6 |
| TM7 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 1 | 3 | 1 |
| Unclassified | 0 | 3 | 2 | 1 | 1 | 2 | 0 | 3 | 2 | 1 | 3 | 2 |
| <i>Verrucomicrobia</i> | 36 | 142 | 99 | 35 | 37 | 37 | 34 | 138 | 22 | 26 | 90 | 41 |
| VHS-B3-43 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| WPS-2 | 1 | 3 | 3 | 2 | 1 | 2 | 0 | 3 | 1 | 0 | 2 | 3 |
| WS1 | 0 | 1 | 2 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 2 | 2 |
| WS2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| WS3 | 15 | 36 | 28 | 23 | 23 | 25 | 15 | 33 | 17 | 21 | 34 | 23 |
| ZB2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ZB3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 2 | 1 |
| Total | 2133 | 6577 | 7339 | 2797 | 3052 | 3932 | 1625 | 7463 | 3638 | 2172 | 5835 | 3859 |