**Table S3**. Total carbon (TC) and nitrogen (TN) content in upper 3-cm of the sediment. The presence and activity of oyster aquaculture results in an increase on organic content of the underlying sediment over the course of the growing season. BC show the largest impact with TC increasing ~14%, followed by OG (~8%), FB (~4%) and the C (~3%).

|  |  |  |  |
| --- | --- | --- | --- |
| Treatment | Month | 2018 | 2019 |
| C (%)($\pm $0.05) | N (%)($\pm $0.03) | C:N mole ratio | C (%)($\pm $0.06) | N (%)($\pm $0.02) | C:N mole ratio |
| Control | May | 3.97 | 0.48 | 9.57 | 4.04 | 0.49 | 9.57 |
| June | 4.03 | 0.49 | 9.59 | 3.93 | 0.48 | 9.57 |
| July | 3.97 | 0.47 | 9.80 | 4.03 | 0.49 | 9.68 |
| August | 4.02 | 0.48 | 9.85 | 4.03 | 0.49 | 9.68 |
| September | 4.07 | 0.48 | 9.92 | 4.05 | 0.48 | 9.80 |
| October | 4.08 | 0.48 | 9.92 | 4.11 | 0.49 | 9.86 |
| Floating Bags | May | 4.08 | 0.50 | 9.52 | 4.11 | 0.50 | 9.59 |
| June | 4.16 | 0.51 | 9.59 | 4.16 | 0.51 | 9.58 |
| July | 4.18 | 0.51 | 9.60 | 4.27 | 0.52 | 9.65 |
| August | 4.24 | 0.50 | 9.82 | 4.29 | 0.51 | 9.80 |
| September | 4.27 | 0.50 | 9.92 | 4.25 | 0.50 | 9.92 |
|  | October | 4.29 | 0.50 | 9.94 | 4.28 | 0.50 | 10.00 |
| Oyster Gro’ | May | 3.99 | 0.49 | 9.57 | 4.02 | 0.49 | 9.58 |
| June | 4.07 | 0.50 | 9.54 | 4.08 | 0.50 | 9.60 |
| July | 4.05 | 0.49 | 9.68 | 4.11 | 0.50 | 9.61 |
| August | 4.22 | 0.51 | 9.68 | 4.26 | 0.51 | 9.72 |
| September | 4.24 | 0.51 | 9.72 | 4.28 | 0.51 | 9.75 |
| October | 4.36 | 0.52 | 9.80 | 4.32 | 0.51 | 9.80 |
| Bottom Cages | May | 4.01 | 0.49 | 9.56 | 4.12 | 0.50 | 9.56 |
| June | 4.11 | 0.50 | 9.59 | 4.18 | 0.51 | 9.61 |
| July | 4.11 | 0.49 | 9.70 | 4.19 | 0.50 | 9.70 |
| August | 4.24 | 0.50 | 9.84 | 4.29 | 0.52 | 9.72 |
| September | 4.62 | 0.54 | 9.97 | 4.59 | 0.54 | 9.93 |
| October | 4.73 | 0.55 | 10.07 | 4.66 | 0.54 | 10.12 |