**Table S4**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Taxa** | **n** | **is** | **is** | **p** | **Slope****(mean ± SE)** | **Island category** | **Mean ± SE** |
| **N:C** |  |  |  |  |  |  |  |
| ***Fucus vesiculosus***  | 102 | 17 | 17 |  |  | RF | 0.035 ± 0.003 |
| Island category (df = 3) |  |  |  | 0.033 |  | AB | 0.025 ± 0.003 |
|  |  |  |  |  |  | COL | 0.035 ± 0.008 |
|  |  |  |  |  |  | COH | 0.055 ± 0.004\* |
| **Epiphytic algae**  | 154 | 17 | 17 |  |  | RF | 0.054 ± 0.006 |
| Island category (df = 3) |  |  |  | 0.023 |  | AB | 0.042 ± 0.002 |
| Wave exposure (df = 1) |  |  |  | 0.015 | -0.006 ± 0.002 | COL | 0.065 ± 0.004 |
|  |  |  |  |  |  | COH | 0.082 ± 0.003\*\* |
| **P:C** |  |  |  |  |  |  |  |
| ***Fucus vesiculosus***  | 33 | 17 | 17 |  |  | RF | 1.23e-3 ± 0.08e-3 |
| Island category (df = 3) |  |  |  | 0.055 |  | AB | 1.25e-3 ± 0.08e-3 |
|  |  |  |  |  |  | COL | 1.68e- 3 ± 0.34e-3• |
|  |  |  |  |  |  | COH | 1.86e- 3 ± 0.17e-3\* |
| **Epiphytic algae**  | 34 | 16 | 16 |  |  | RF | 4.01e- 3 ± 0.37e-3 |
| Island category (df = 3) |  |  |  | 0.063 |  | AB | 4.50e- 3 ± 0.61e-3 |
|  |  |  |  |  |  | COL | 4.85e- 3 ± 0.42e-3 |
|  |  |  |  |  |  | COH | 5.87e- 3 ± 0.39e-3\* |
| **N:P** |  |  |  |  |  |  |  |
| ***Fucus vesiculosus***  | 33 | 17 | 17 |  |  | RF | 28.01 ± 2.69 |
| Island category (df = 3) |  |  |  | 0.999 |  | AB | 28.48 ± 1.74 |
|  |  |  |  |  |  | COL | 27.52 ± 6.37 |
|  |  |  |  |  |  | COH | 28.10 ± 2.56 |
| **Epiphytic algae**  | 24 | 16 | 16 |  |  | RF | 14.3 ± 1.45 |
| Island category (df = 3) |  |  |  | 0.255 |  | AB | 8.68 ± 1.71 |
|  |  |  |  |  |  | COL | 11.99 ± 0.98 |
|  |  |  |  |  |  | COH | 13.92 ± 0.79 |