**Supplementary Table S1**.Summary of F and p values of two-way ANOVAs for Gross Production (GP), Light Calcification and rhodolith biomass and one-way ANOVAs for Respiration (R) and Dark Calcification. H and p values of Kruskal-Wallis test for biomass of fauna biomass, weight of individual rhodoliths and total rhodolith biomass.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **df** | **MS** | **F/H** | **p** |
| **GP** |  |  |  |  |
| Species | 2 | 0.647 | F=28.58 | **<0.001** |
| Time of incubation | 2 | 1.104 | F=48.78 | **<0.001** |
| Species \* Time of incubation | 4 | 0.101 | F=4.49 | **0.006** |
| **R** |  |  |  |  |
| Species | 2 | 0.010 | F=14.49 | **0.005** |
| **Light Calcification** |  |  |  |  |
| Species | 2 | 0.153 | F=113.68 | **<0.001** |
| Time of incubation | 2 | 0.045 | F=33.38 | **<0.001** |
| Species \*Time of incubation | 4 | 0.012 | F=9.57 | **<0.001** |
| **Rodolith species biomass** |  |  |  |  |
| Species | 3 | 639.2 | F=505.08 | **<0.001** |
| Period | 4 | 6.1 | F=4.84 | **0.001** |
| Species\*period | 12 | 4.2 | F=3.32 | **<0.001** |
| **Dark Calcification** |  |  |  |  |
| Species | 2 | 0.002 | F=98.68 | **<0.001** |
| **Mollusca biomass** |  |  |  |  |
| Collections |  |  | H=10.21 | **0.006** |
| **Arthropoda biomass** |  |  |  |  |
| Collections |  |  | H=0.08 | 0.956 |
| **Annelida biomass** |  |  |  |  |
| Collections |  |  | H=10.22 | **0.006** |
| **Weight per individual rhodoliths** |  |  |  |  |
| Species |  |  | H=14.21 | **<0.001** |
| **Total rhodolith biomass** |  |  |  |  |
| Collections |  |  | H=24.51 | **<0.001** |