**Coral energy reserves and calcification in a high-CO2 world at two temperatures**

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**Supplemental Table S1. *Results of 8 two-way ANOVAs for average calcification rate during the first and second half of the experiment.*** Four species (*Acropora millepora, Pocillopora damicornis, Montipora monasteriata, Turbinaria reniformis*) were compared at three *p*CO2 concentrations (382, 607, 741 μatm) and two temperature levels (26.5, 29.0°C) with colony as a random factor. Post hoc Tukey tests were used when main effects were significant. Effects were considered significant when *p*≤0.05 (highlighted in bold).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variable | Effect | df | SS | *F*-statistic | *p*-value | Tukey |
|  |  |  |  |  |  |  |
| *Acropora millepora* |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 1st Half | Model | 10, 35 | 0.1282 | 1.28 | 0.2955 |  |
|  | Error | 25 | 0.2512 |  |  |  |
|  | Temp | 1 | 0.0086 | 0.86  | 0.3625 |  |
|  | *p*CO2 | 2 | 0.0047 | 0.23 | 0.7938 |  |
|  | Colony | 5 | 0.0752 | 1.50 | 0.2265 |  |
|  | Temp x *p*CO2 | 2 | 0.0397 | 1.98 | 0.1597 |  |
|  |  |  |  |  |  |  |
| 2nd Half | Model | 10, 33 | 0.0187 | 4.78 | **0.0009** |  |
|  | Error | 23 | 0.0090 |  |  |  |
|  | Temp | 1 | 0.0003 | 0.67 | 0.4203 |  |
|  | *p*CO2 | 2 | 0.0037 | 9.45 | **0.0010** | 382=60 > 607=741 |
|  | Colony | 5 | 0.0021 | 5.25 | **0.0023** | 3=2=4=5=1 > 2=4=5=1=6 |
|  | Temp x *p*CO2 | 2 | 0.0003 | 0.76 | 0.4769 |  |
|  |  |  |  |  |  |  |
| *Pocillopora damicornis* |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 1st Half | Model | 10, 35 | 73.7080 | 20.04 | **<0.0001** |  |
|  | Error | 25 | 9.1967 |  |  |  |
|  | Temp | 1 | 0.0687 | 0.19 | 0.6694 |  |
|  | *p*CO2 | 2 | 5.7149 | 7.77 | **0.0024** |  |
|  | Colony | 5 | 54.9847 | 29.89 | **<0.0001** | 4=6 > 6=5 > 2=3=1 |
|  | Temp x *p*CO2 | 2 | 12.9417 | 17.59 | **<0.0001** |  |
|  |  |  |  |  |  |  |
| 2nd Half | Model | 10, 34 | 0.0684 | 3.82 | **0.0035** |  |
|  | Error | 24 | 0.0430 |  |  |  |
|  | Temp | 1 | 0.0073 | 4.06 | 0.0551 |  |
|  | *p*CO2 | 2 | 0.0106 | 2.96 | 0.0709 |  |
|  | Colony | 5 | 0.0388 | 4.33 | **0.0060** | 4=2=6=5 > 2=6=5=1=3 |
|  | Temp x *p*CO2 | 2 | 0.0106 | 2.95 | 0.0716 |  |
|  |  |  |  |  |  |  |
| *Montipora monasteriata* |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 1st Half | Model | 10, 35 | 0.2514 | 3.55 | **0.0049** |  |
|  | Error | 25 | 0.1768 |  |  |  |
|  | Temp | 1 | 0.0348 | 4.91 | **0.0360** | 29.0 > 26.5 |
|  | *p*CO2 | 2 | 0.0128 | 0.91 | 0.4166 |  |
|  | Colony | 5 | 0.1687 | 4.77 | **0.0034** | 6=4=2=1 > 4=2=1=5 > 2=1=5=3 |
|  | Temp x *p*CO2 | 2 | 0.0351 | 2.48 | 0.1042 |  |
|  |  |  |  |  |  |  |
| 2nd Half | Model | 10, 35 | 0.5361 | 5.71 | **0.0002** |  |
|  | Error | 25 | 0.2348 |  |  |  |
|  | Temp | 1 | 0.0005 | 0.05 | 0.8208 |  |
|  | *p*CO2 | 2 | 0.0396 | 2.11 | 0.1427 |  |
|  | Colony | 5 | 0.4800 | 10.22 | **<0.0001** | 6=4 > 4=2 > 2=5=1=3 |
|  | Temp x *p*CO2 | 2 | 0.0160 | 0.85 | 0.4379 |  |
|  |  |  |  |  |  |  |
| *Turbinaria reniformis* |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 1st Half | Model | 10, 35 | 0.1838 | 4.51 | **0.0011** |  |
|  | Error | 25 | 0.1020 |  |  |  |
|  | Temp | 1 | 0.0024 | 0.59 | 0.4492 |  |
|  | *p*CO2 | 2 | 0.0086 | 1.06 | 0.3618 |  |
|  | Colony | 5 | 0.1619 | 7.94 | **0.0001** | 5=3=4=1=2 > 6 |
|  | Temp x *p*CO2 | 2 | 0.0109 | 1.34 | 0.2812 |  |
|  |  |  |  |  |  |  |
| 2nd Half | Model | 10, 34 | 0.1828 | 2.89 | **0.0160** |  |
|  | Error | 24 | 0.1516 |  |  |  |
|  | Temp | 1 | 0.0125 | 1.97 | 0.1729 |  |
|  | *p*CO2 | 2 | 0.0339 | 2.68 | 0.0887 |  |
|  | Colony | 5 | 0.1308 | 4.14 | **0.0075** | 5=3=2=1=4 > 2=1=4=6 |
|  | Temp x *p*CO2 | 2 | 0.0044 | 0.35 | 0.7094 |  |

df = degrees of freedom, SS = sum of squares of the effects