

Thermal adaptation and physiological responses to environmental stress in tunicates

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Table S1. ANOVA carried out on RR at varying temperatures; ln(x) = data log-transformed

| RR | | | |
|----------------|-----|--------|-------|
| Source | DF | MS | P |
| TEMP | 16 | 5.3726 | *** |
| RES | 119 | 0.3083 | |
| TOT | 135 | | |
| Cochran's Test | | | ln(x) |

Table S2. Post-hoc comparison SNK outcome to verify differences in respiration rates as a function of varying temperatures (TEMP); *= $p \leq 0.05$; **= $p \leq 0.01$; ***= $p \leq 0.001$; ns = no significant difference ($p > 0.05$).

| TEMP | 6 | 8 | 10 | 12 | 15 | 18 | 21 | 24 | 27 | 29 | 31 | 33 | 35 | 37 | 39 | 40 | 41 |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 6 | - | | | | | | | | | | | | | | | | |
| 8 | ** | - | | | | | | | | | | | | | | | |
| 10 | ** | * | - | | | | | | | | | | | | | | |
| 12 | ** | * | ns | - | | | | | | | | | | | | | |
| 15 | ** | * | ns | ns | - | | | | | | | | | | | | |
| 18 | ** | ** | ns | ns | ns | - | | | | | | | | | | | |
| 21 | ** | ** | ns | ns | ns | ns | - | | | | | | | | | | |
| 24 | ** | ** | ns | ns | ns | ns | ns | - | | | | | | | | | |
| 27 | ** | ** | ns | ns | ns | ns | ns | ns | - | | | | | | | | |
| 29 | ** | ** | ** | ** | ** | * | ns | ns | ns | - | | | | | | | |
| 31 | ** | ** | ** | * | ** | ns | ns | ns | ns | ns | - | | | | | | |
| 33 | ** | ** | ns | ns | ns | ns | ns | ns | ns | ns | ns | - | | | | | |
| 35 | ** | ** | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | - | | | | |
| 37 | ** | ** | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | - | | | |
| 39 | ** | ** | ** | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | ns | - | | |
| 40 | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | ** | - |
| 41 | ** | ** | ** | ** | ** | ** | ns | ns | ns | ns | ns | * | ns | ns | ns | ** | - |

Table S3 ANOVA carried out on CR; and AE at varying food (Chl-a) concentrations; Sqrt(X+1) = data transformed; ζ = data not transformed, the significance level was set at 0.01 instead of 0.05

| | CR | | | AE | |
|----------------|----|--------|-----------|--------|---------|
| Source | DF | MS | P | MS | P |
| FOOD | 7 | 0.1889 | *** | 0.0209 | ns |
| RES | 72 | 0.0317 | | 0.0098 | |
| TOT | 79 | | | | |
| Cochran's Test | | | Sqrt(X+1) | | ζ |

Table S4. Post-hoc comparison SNK outcome to verify differences in CR as a function of varying Chl-a concentrations; * = $p \leq 0.05$; ** = $p \leq 0.01$; *** = $p \leq 0.001$; ns = no significant difference ($p > 0.05$).

| Chl-a | 0.3 | 0.6 | 1.4 | 2.2 | 3.1 | 4.4 | 8.6 | 15.8 |
|-------|-----|-----|-----|-----|-----|-----|-----|------|
| 0.3 | - | | | | | | | |
| 0.6 | ns | - | | | | | | |
| 1.4 | ns | ns | - | | | | | |
| 2.2 | ns | ns | ns | - | | | | |
| 3.1 | ** | ** | ** | * | - | | | |
| 4.4 | ** | ns | * | ns | ns | - | | |
| 8.6 | ** | * | * | * | ns | ns | - | |
| 15.8 | ns | ns | ns | ns | ns | ns | ns | - |