**Temperature and interspecific competition alter the impacts of two invasive species on a key ecosystem process**

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**Table S1.**  Summary results of the Two-way ANOVAs on the effects of crayfish treatments and temperature on microbial, *Sericostoma* sp. and crayfish leaf-breakdown and FPOM production by crayfish.

|  |  | **Df** | **Sum Sq** | **Mean Sq** | **F value** | **Pr(>F)** |
| --- | --- | --- | --- | --- | --- | --- |
| Microbial | treatment | 3 | 0.073 | 0.024 | 0.474 | 0.70 |
| temp | 1 | 0.329 | 0.329 | 6.403 | 0.02 |
| treatment:temp | 3 | 0.099 | 0.033 | 0.642 | 0.60 |
| Residuals | 24 | 1.234 | 0.051 |  |  |
| *Sericostoma* Sp. | treatment | 3 | 0.269 | 0.090 | 1.300 | 0.30 |
| temp | 1 | 0.378 | 0.378 | 5.469 | 0.03 |
| treatment:temp | 3 | 0.090 | 0.030 | 0.433 | 0.73 |
| Residuals | 24 | 1.657 | 0.069 |  |  |
| Crayfish leaf breakdown | treatment | 2 | 0.001 | 0.001 | 3.784 | 0.04 |
| temp | 1 | 0.001 | 0.001 | 6.314 | 0.02 |
| treatment:temp | 2 | 0.000 | 0.000 | 1.363 | 0.28 |
| Residuals | 18 | 0.003 | 0.000 |  |  |
| Crayfish FPOM | treatment | 2 | 0.000 | 0.000 | 8.153 | 0.00 |
| temp | 1 | 0.000 | 0.000 | 14.939 | 0.00 |
| treatment:temp | 2 | 0.000 | 0.000 | 1.202 | 0.32 |
| Residuals | 18 | 0.000 | 0.000 |  |  |