

Supplementary Material for:

**The Responses of Cladoceran Communities to the Single and Simultaneous Effects of
Environmentally Relevant Increases in Temperature and Phosphorus Concentration in
Freshwater Ecosystems**

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Table S1. Results of one-way ANOVA for functional and compositional resistance of cladoceran communities. Results are significant at $p < 0.05$

| Effect | MS | $F_{1,2}$ | p-value |
|---------------------|-------|-----------|------------|
| Resist _D | 0.159 | 139.120 | $p < 0.01$ |
| Resist _C | 0.120 | 2.769 | ns |

ns – not significant

Table S2. Results of Tukey HSD tests showing pairwise comparisons between functional or compositional resistances of cladoceran communities

| | Temperature | Phosphorus load |
|--------------------------|-------------|-----------------|
| Resist _D | | |
| Phosphorus load | $p < 0.01$ | |
| Temperature x phosphorus | $p < 0.01$ | $p < 0.01$ |

| | | |
|--------------------------|----|----|
| Resist _C | | |
| Phosphorus load | ns | |
| Temperature x phosphorus | ns | ns |

ns – not significant

Table S3. Results of one-way ANOVA for functional and compositional resilience of cladoceran communities. Results are significant at $p < 0.05$

| Effect | MS | $F_{1,2}$ | p-value |
|--------------------|-------|-----------|------------|
| Resil _D | 0.115 | 29.003 | $p < 0.01$ |
| Resil _C | 0.003 | 34.111 | $p < 0.01$ |

Table S4. Results of Tukey HSD tests showing pairwise comparisons between functional or compositional resistances of cladoceran communities

| | Temperature | Phosphorus load |
|--------------------------|-------------|-----------------|
| Resist _D | | |
| Phosphorus load | ns | |
| Temperature x phosphorus | $p < 0.01$ | $p < 0.01$ |

| | | |
|--------------------------|------------|------------|
| Resist _C | | |
| Phosphorus load | ns | |
| Temperature x phosphorus | $p < 0.01$ | $p < 0.01$ |

ns – not significant

Table S5. Results of one-way ANOVA for functional and compositional stability of cladoceran communities. Results are significant at $p < 0.05$

| Effect | MS | $F_{1,2}$ | p-value |
|-------------------|-------|-----------|------------|
| Stab _D | 0.061 | 1.718 | ns |
| Stab _C | 5.013 | 7.053 | $p < 0.01$ |

ns – not significant

Table S6. Results of Tukey HSD tests showing pairwise comparisons between functional or compositional stability of cladoceran communities

| | Temperature | Phosphorus load |
|--------------------------|-------------|-----------------|
| Resist _D | | |
| Phosphorus load | ns | |
| Temperature x phosphorus | ns | ns |
| Resist _C | | |
| Phosphorus load | $p < 0.01$ | |
| Temperature x phosphorus | $p < 0.01$ | ns |

ns – not significant

Table S7. Results of one-way ANOVA for functional and compositional similarity between disturbed and prior-disturbed cladoceran communities. Results are significant at $p < 0.05$

| Effect | MS | $F_{1,2}$ | p-value |
|--------------------|-------|-----------|------------|
| Simil _D | 1.098 | 145.297 | $p < 0.01$ |
| Simil _C | 0.254 | 32.714 | $p < 0.01$ |

Table S8. Results of Tukey HSD tests showing pairwise comparisons between functional and compositional similarity of cladoceran communities

| | Temperature | Phosphorus load |
|--------------------------|-------------|-----------------|
| Simil _D | | |
| Phosphorus load | ns | |
| Temperature x phosphorus | $p < 0.01$ | $p < 0.01$ |
| Simil _C | | |
| Phosphorus load | $p < 0.01$ | |
| Temperature x phosphorus | $p < 0.01$ | ns |

ns – not significant