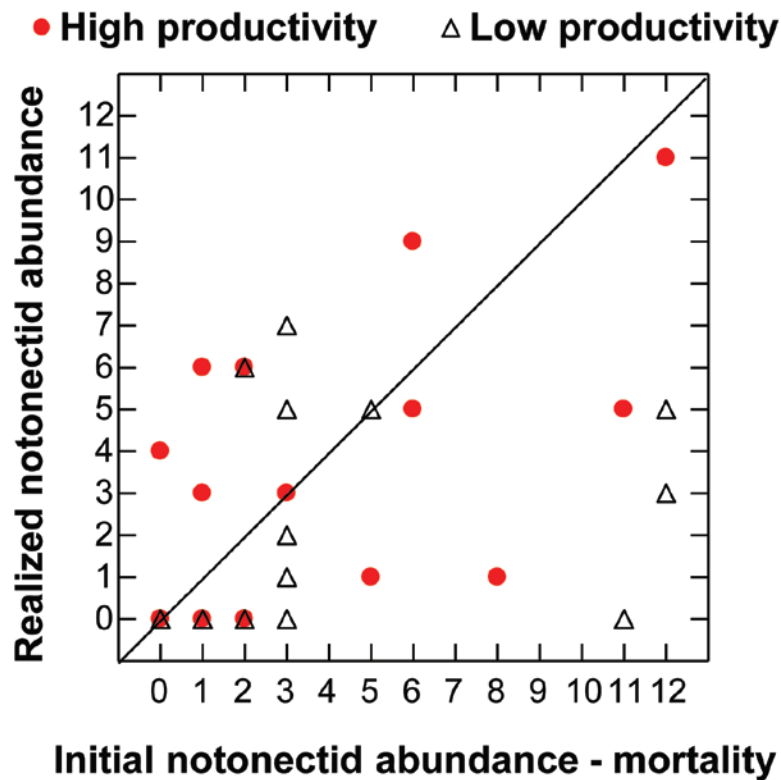


Appendix 1

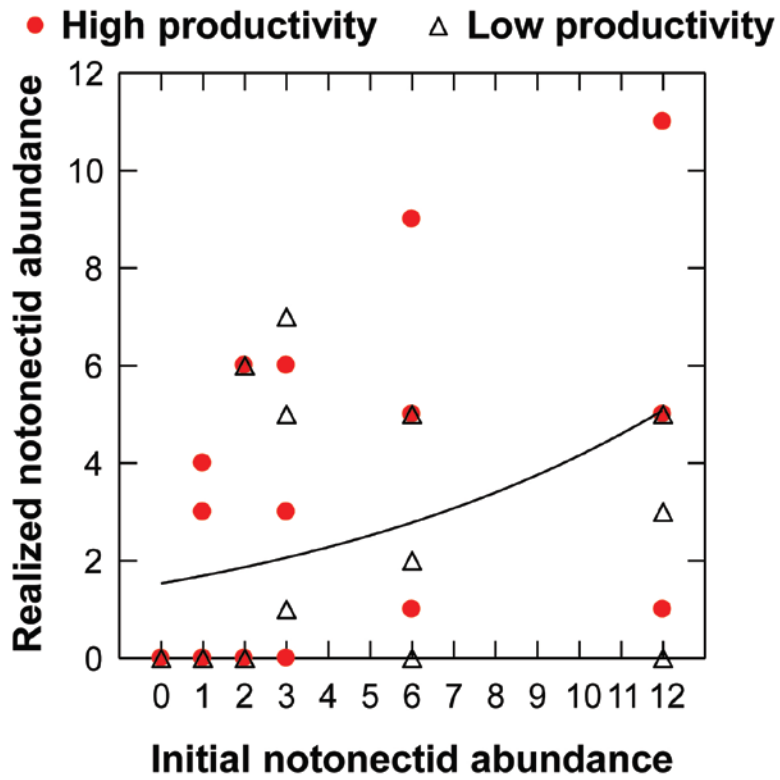
Supplemental Figure A1.

Figure A1. The relationship between realized notonectid abundance and initial notonectid abundance minus mortality (the total number of dead adult notonectids observed in the tanks over the course of the experiment); results are shown for both high and low productivity treatments. Values below the dashed 1:1 line are evidence of emigration (reductions in abundance in excess of mortality).



Supplemental Figure A2

Figure A2. The relationship between realized and initial notonectid abundances in high and low productivity treatments. Shown is the model fit from the GLM analysis (the relationship is for both low and high productivity treatments combined). See Results for model statistics.

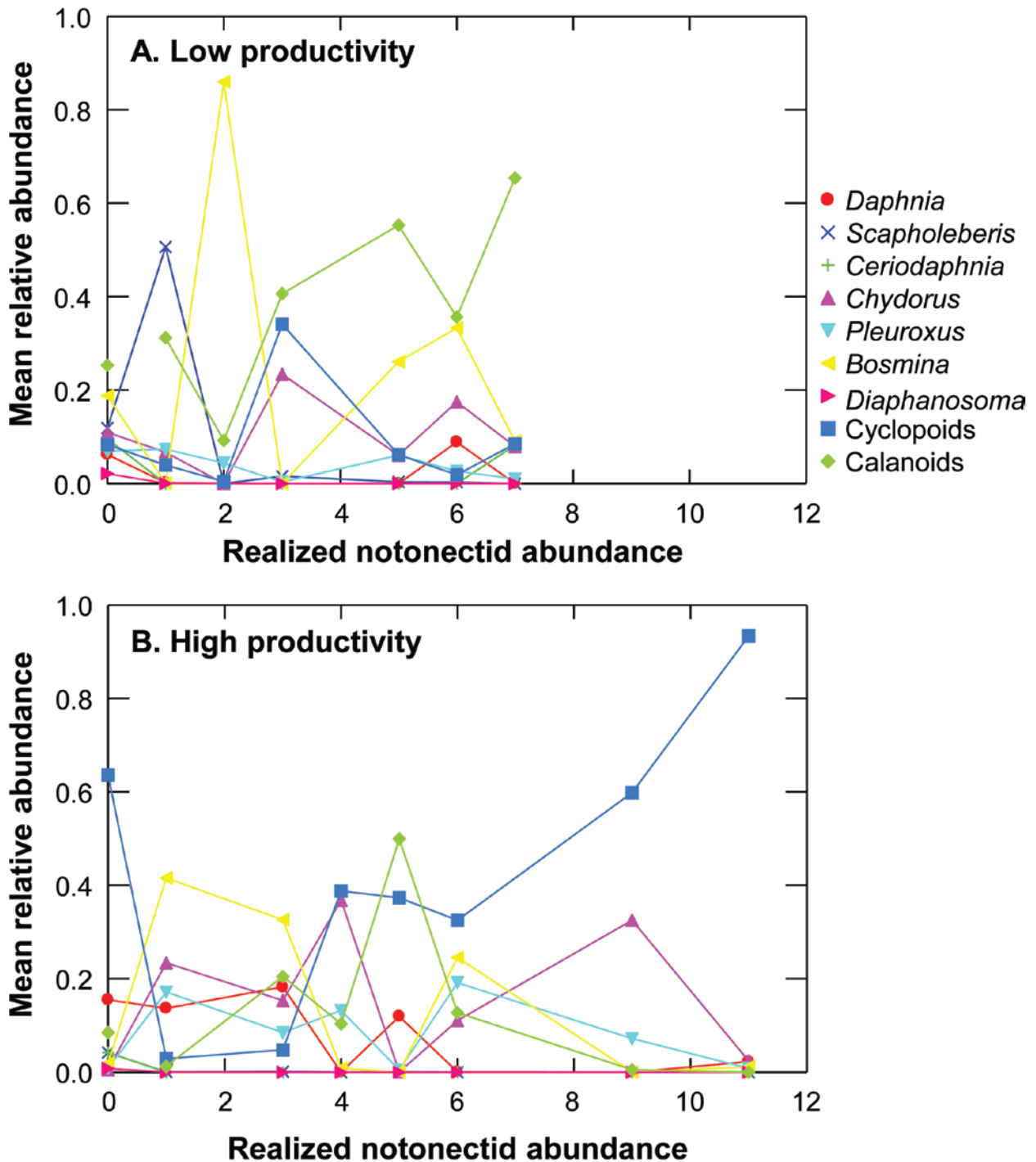


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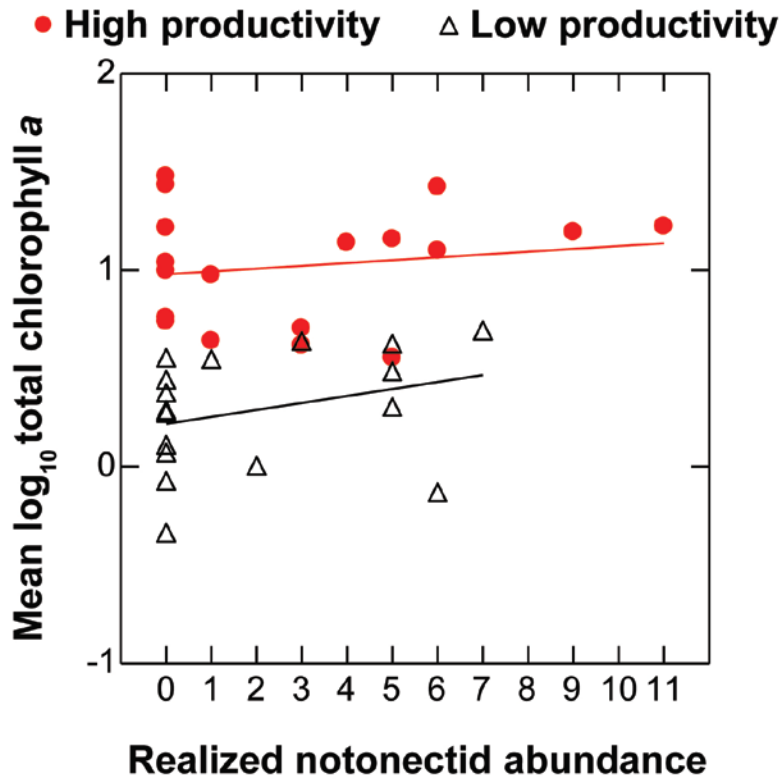
Supplemental Figure A3.

Figure A3. The relationship between time-averaged relative abundances of zooplankton taxa and realized notonectid abundance for (A) low productivity and (B) high productivity treatments.



Supplemental Figure A4.

Figure A4. The relationship between time-averaged \log_{10} total chlorophyll a ($\mu\text{g/L}$) and realized notonectid abundance in the high and low productivity treatments. Shown are model fits from separate linear regressions for the low productivity (black line) and high productivity (red line) treatments.

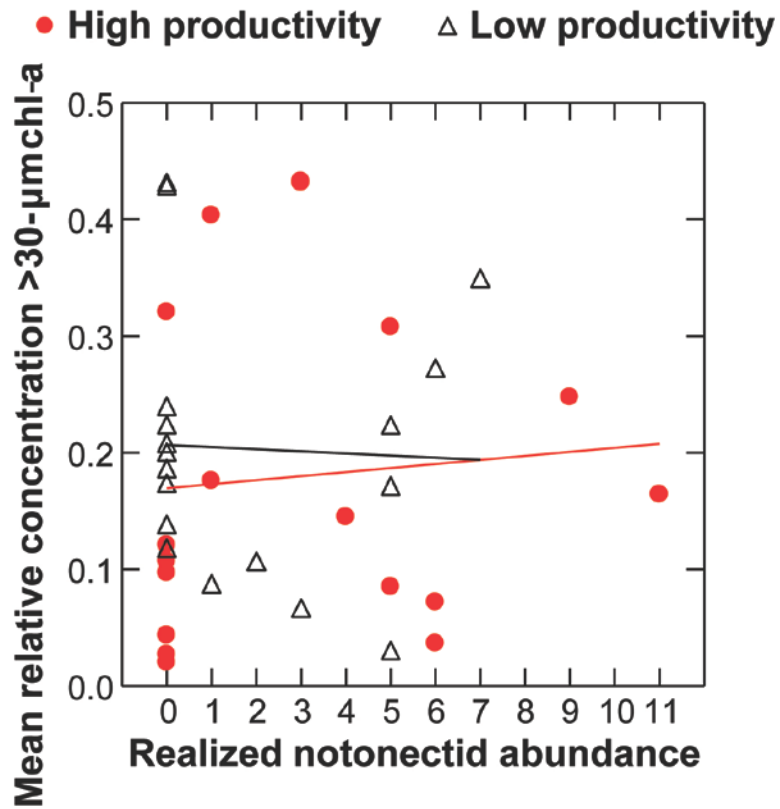


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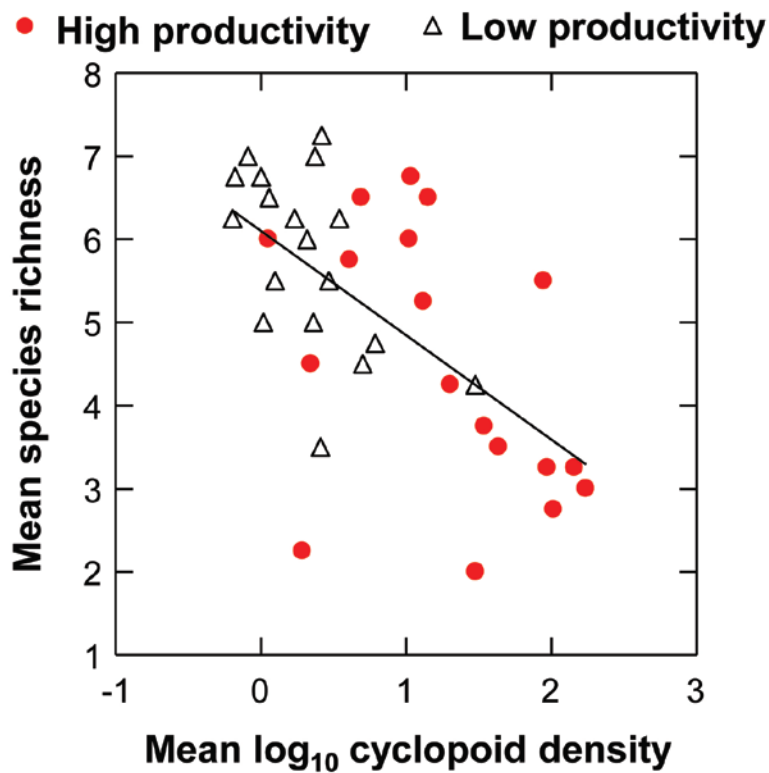
Supplemental Figure A5.

Figure A5. The relationship between time- averaged relative concentration of grazer-resistant (>30- μm) chlorophyll a and realized notonectid abundance in the high and low productivity treatments. Shown are model fits from separate linear regressions for the low productivity (black line) and high productivity (red line) treatments.



Supplemental Figure A6

Figure A6. The relationship between time-averaged zooplankton species richness (excluding cyclopid copepods) and time-averaged \log_{10} cyclopid density in high and low productivity treatments. Mean \log_{10} cyclopid density had a significant negative effect on mean species richness ($F_{1,30} = 5.95$, $p = 0.02$, GLM Gaussian errors) but no effect of productivity and no interaction between cyclopid density and productivity were present ($p > 0.70$, GLM Gaussian errors). Shown is the model fit for a reduced model containing only mean \log_{10} cyclopid density as a predictor.



16

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Supplemental Figure A7

Figure A7. The relationship between zooplankton species richness residuals and realized notonectid abundance at different levels of productivity. Residuals were obtained from the linear regression between time-averaged zooplankton species richness (excluding cyclopoids) and time-averaged \log_{10} cyclopoid density as the predictor (as in Fig. A6). Effects of realized notonectid abundance and productivity on residual species richness were analyzed using GLM with Gaussian errors (including linear and quadratic effects of notonectids). This analysis produced a significant interaction between productivity and the quadratic effect of notonectid abundance ($F_{1,30} = 5.83$, $p = 0.02$). Analyzing low and high productivity treatments separately, a weak negative effect of notonectid abundance on residual species richness was detected at low productivity ($p = 0.07$, $R^2 = 0.15$, linear regression). At high productivity, a significant negative quadratic effect of notonectid abundance was present ($p < 0.01$, model $p = 0.01$, $R^2 = 0.36$, linear regression). Shown are model fits from the separate linear regressions for the low productivity (black line) and high productivity (red line) treatments.

