

Interactive comment on “ Eutrophication and warming effects on long-term variation of zooplankton in Lake Biwa” by C. H. Hsieh et al.

Anonymous Referee #1

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It is interesting to see the long-term changes of a zooplankton assemblage in Lake Biwa and explore how the time series were driven by environmental and biological conditions. This study clearly and concisely reports the descriptive patterns of the long-term changes and discusses the driving mechanisms of the patterns based on some statistical analyses. Although this study showed that eutrophication-reoligotrophication and warming seem to have influenced the long-term patterns, I wonder if other factors may have influenced as well. For example, a zooplankton assemblage can be shaped by higher trophic levels (e.g. fish and invertebrate predators) and competitive interactions among zooplankton species. There may be other missing factors. More comprehensive analyses including these possible factors would be ideal, but usually

C277

we do not have enough data to do so. The authors would discuss more about the limitation of the present analysis based on the limited data set and suggest what research and monitoring are required in order to understand what kind of problems, which were unanswered in the present study.

Minor comments: Table 2, “Feeding type” is missing from the middle of the table. Figure 6 (b), the right black arrow should be removed? Table A1, “the upper lower”??, the caption states “all pair-wise correlations are significant”, so that “0.545” and “0.351” (both in the upper triangle) would be mistyped.

Interactive comment on Biogeosciences Discuss., 8, 593, 2011.