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Interactive Comment

Interactive comment on "Marine viral populations detected during a nutrient induced phytoplankton bloom at elevated pCO_2 levels" by J. B. Larsen et al.

J. B. Larsen et al.

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Final author comments

The authors wish to thank the three anonymous referees for valuable comments to our Discussion Paper "Marine viral populations detected during a nutrient induced phytoplankton bloom at elevated pCO2 levels". Several important aspects that, when addressed, will improve revised version of the paper, have been brought up: Firstly Referee # 2 quite correctly points to the fact that a discussion around a pH effect itself (not only the CO2 concentration) on the coupling between virus and their respective hosts would be appropriate. We have reviewed the literature and will in the revised version of the ms include a discussion of how decreased pH as a result of increased



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CO2 may possibly affect the host virus interactions.

Secondly both Referee # 2 and Referee #3 ask for a clarification and more thorough discussion of whether reduced viral concentrations might merely be an indirect effect of altered host concentrations, and Referee #3 drew our attention to alternative explanations (like changes in host genotype). Reflections over these aspects will also be embraced in the revised manuscript.

Thirdly both Referee #2 and #3 call for additional information on the specific and degenerate primers targeting the MCP viral genes. Necessary information is added in the current manuscript although a more thorough examination will be found in JB Larsen et al.: "Phylogenetic analysis of members of the Phycodnaviridae virus family using amplified fragments of the major capsid protein gene" submitted for publication in Applied and Environmental Microbiology. Based on these major, and some minor, concerns addressed by all three referees, we will shortly submit a revised version of our manuscript that hopefully will be accepted for publication in BG. Specific answers to all the above mentioned concerns can be found as separate responses to Referee #1, #2 and #3 in the BGD Interactive Discussion.

Interactive comment on Biogeosciences Discuss., 4, 3961, 2007.

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