

# ***Interactive comment on* “Virus mediated transfer of nitrogen from heterotrophic bacteria to phytoplankton” by Emma J. Shelford and Curtis A. Suttle**

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Thank you for your comments that have improved the manuscript.

General Comments:

Lack of 1999 paper by Proctor and Fuhrman: Thank you for pointing out this important oversight (actually Noble RT, Fuhrman JA (1999) Breakdown and Microbial Uptake of Marine Viruses and Other Lysis Products. *Aquat Microb Ecol* 20:1-11) that we have incorporated into our revised Introduction and Discussion.

Relationship between ambient nutrient concentration and ammonium uptake: we did

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not find a relationship between ambient concentrations of nitrate, phosphate, or ammonium, and ammonium uptake. This could be due to only having four data points; we have pointed this out in the revised manuscript.

Further Comments:

Figure 1: We appreciate that the reviewer found it difficult to follow the Venn diagram. We have put this information into a table in the revised manuscript.

Figure 2A: Grey lines in figures: The figure lines are more discernable in the revised manuscript.

Pg 15, lines 9-12: The statement has been edited in the revised manuscript to reduce quantitative claims.

Pg 12, lines 20-21: This sentence has been edited in the revised manuscript.

Figure 5: The figure is reworked in the revised manuscript to more accurately reflect the complexity of the system. However, unlike the results of Noble and Fuhrman (1999) which discussed the fate of carbon in the system, the current study examines N. For low-level additions of N (such as the field studies SB and JP), most of the labeled 15-N ended up in the PON pool.

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