

Interactive comment on “Modelling Silicate – Nitrate - Ammonium co-limitation of algal growth and the importance of bacterial remineralisation based on an experimental Arctic coastal spring bloom culture study” by Tobias R. Vonnahme et al.

Anonymous Referee #1

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This study investigates the role of bacteria in nutrient remineralization during the spring bloom in an Arctic coastal ecosystem. The work combines a cultivation experiment with a simplified dynamic model to represent processes of remineralization, silicate limitation, and nitrogen limitation. The purpose of the model was to "describe the response in photosynthesis, chlorophyll synthesis and nitrogen assimilation with a minimal number of parameters."

Chaetoceros socialis may not be representative of the the most important diatom species across all of the Arctic coastal areas. How representative do you expect that it

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is?

line 173: define EPS here and not on line 342

line 191: sentence needs a .

line 228: change extend to extent

line 231: units for growth rate?

line 255: two-thirds

line 257: allowed an estimate of

line 274: change was to were

line 285: parameters

line 307: delete it

line 320: in order

line 325: the time scale

line 403: export is decreasing overall

Figs. 4 and 5: the legend is missing entries for the solid red line and the dashed red line

Fig. B3: the legend is missing an entry for the red line

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