

Interactive  
Comment

## ***Interactive comment on “Genotyping an *Emiliana huxleyi* (Prymnesiophyceae) bloom event in the North Sea reveals evidence of asexual reproduction” by S. A. Krueger-Hadfield et al.***

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We would like to thank both reviewers for their overwhelming support for our paper. Both have, however, raised a few interesting points of discussion, to which we have responded as follows:

Reviewer #1

Abstract, Line 10. A generation time of 1 day<sup>-1</sup> is certainly a maximal potential growth that occurs in culture. In the field growth rates are certainly lower. This information should be more precise and supported with a reference or result.

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Interactive Discussion

Discussion Paper



Our experiences from mesocosm-based experiments indicate that Ehux can divide more than once a day. We've recorded as much as 1.4 divisions per day, where Ehux numbers jumped from around 22 to  $57 \times 10^3$  cells per ml on dates 15th to 16th of June 2000, respectively (Schroeder et al AEM 2003, 69: 2484-2490). That said, I agree with the reviewer that in oligotrophic non-blooming environments Ehux is likely to have a much lower growth rate. The point made in the abstract must be seen in context. Here we are referring to the occasion when Ehux forms blooms, i.e., "large population sizes", where doubling times have been recorded to be in the range of days and not weeks or months or years. Inclusion of a ref in the abstract is prohibited by the Journal.

Abstract, Line 22. Sex is the predominant mode of reproduction during bloom events – sentence should be revised

We are not clear as to why the reviewer wants a revision in this sentence. However on reflection we will reword this sentence as follows: "This study challenges the current assumption that sexual reproduction predominates during bloom events."

Discussion, Line 9. Asexual reproduction prevails (not occurs, because this obvious).

Agreed, we will change "occurs" to "prevails" in the final draft.

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Interactive comment on Biogeosciences Discuss., 11, 4359, 2014.

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