Biogeosciences Discuss., 10, C1153–C1154, 2013
www.biogeosciences-discuss.net/10/C1153/2013/

Biogeosciences Discussions

Interactive comment on "Enhancement of photosynthetic carbon assimilation efficiency of phytoplankton assemblage in the future coastal ocean" *by* J.-H. Kim et al.

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Received and published: 22 April 2013

This is not a review; I just thought that the following comments would be helpful.

- There is a high level of novelty in this perturbation experiment. To my knowledge, it is the first time that temperature is manipulated together with CO_2 in a pelagic mesocosm. More information is needed on the technique used to elevate temperature: material of the tubing, temperature and flow rate of the heated water, mixing and homogeneity of temperature in the mesocosms.

- the correct unit for pCO_2 in seawater is μatm rather than ppmv

- ^{14}C fixation measure something that is between net and gross community production. As the duration of the incubations was relatively short in this experiment, it is likely closer to GCP than to NCP. However, it is misleading to refer to ^{14}C fixation as "gross photosynthesis".

Finally, *Biogeosciences* strongly promotes the full availability of the data sets reported in the papers that it publishes in order to facilitate future data comparison and compilation as well as meta-analysis. This can be achieved by uploading the data sets in an existing database and providing the link(s) in the paper. Alternatively, the data sets can be published, for free, alongside the paper as supplementary information. The ascii (or text) format is preferred for data and any format can be handled for movies, animations etc... Therefore, I would like to suggest to the authors to consider providing a link to the data or submitting the data sets.

Interactive comment on Biogeosciences Discuss., 10, 4611, 2013.