

Interactive comment on “Temperature and phytoplankton cell size regulate carbon uptake and carbon overconsumption in the ocean” by S. E. Craig et al.

Anonymous Referee #2

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General comments. This is a good contribution. There have been a few papers along these lines, but primarily with laboratory data. Therefore, it is nice to see more explanations for observed phytoplankton community structure from data from at-sea investigations.

Specific Comments:

1. p. 11260, line 15: the phrase 'applied with care' is a common euphemism, and something of a cop out. Why not say it like it is?
2. p. 11259, line 13: Can phytoplankton cells be 'adapted to rapid growth'? Sounds like a strange elocution. Perhaps 'characterized' is a better word.

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3. p. 11267, lines 5-15: the causes of overconsumption are a little speculative without more data. There is also the utilization of DON, I'm guessing.

Technical corrections: 1. Abstract, line 1. There seems always to be the question of whether 'phytoplankton' is/are plural. I prefer the plural.

2. p. 11256, line 19: delete 'and' in '. . .mixing and stratification. . .'
3. p. 11257, line 12: suggest "has been rarely explored"
4. p. 11257, line 21: insert a comma after hydrographic
5. p. 11258, line 5: insert a comma after '(20-200 um)'
6. p. 11265, line 19: Why the passive voice? Also, I'm not sure about 'fully time resolved'. Is there something more than monthly data here? Maybe this awkward phrase is redundant?
7. p. 11265, line 20: replace 'due to the fact that' with 'because'.

Interactive comment on Biogeosciences Discuss., 10, 11255, 2013.