

Interactive comment on “Silicate:nitrate ratios of upwelled waters control the phytoplankton community sustained by mesoscale eddies in sub-tropical North Atlantic and Pacific” by T. S. Bibby and C. M. Moore

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Received and published: 14 January 2011

Authors responses to referees comments and open discussion:

We would like to thank both anonymous reviewers and Dr Larry Anderson for commenting on this paper in the ‘open-discussion’ forum of Biogeosciences. The comments they have made are beneficial and will be incorporated into a revised version of the manuscript, making it a more robust study of the impact of mesoscale eddies on phytoplankton communities in the sub-tropical North Atlantic and Pacific. In this response

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(attached) we have considered the anonymous reviewer comments followed by those comments of Dr Anderson. We are pleased that, in general, all three sets of comments recognised the significance of the findings reported in this paper.

Broadly the reviewers raise two concerns (1) the identification of water masses and (2) an implication of diatom growth rate based on the relative concentration on silicate over nitrate (Si^*). We feel both these concerns are largely misunderstandings of our arguments and have therefore clarified these points in a revised manuscript. We maintain that the findings of the paper represent a significant step forward in our understanding of the control of phytoplankton communities by mesoscale eddies in the sub-tropical North Atlantic and Pacific.

Please also note the supplement to this comment:

<http://www.biogeosciences-discuss.net/7/C4770/2011/bgd-7-C4770-2011-supplement.pdf>

Interactive comment on Biogeosciences Discuss., 7, 7505, 2010.

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