

Interactive comment on “Contrasting effects of acidification and warming on dimethylsulfide concentrations during a temperate estuarine fall bloom mesocosm experiment” by Robin Bénard et al.

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Referee #1 comments: I finished my review of the manuscript “Contrasting effects of acidification and warming on dimethylsulfide concentrations during a temperate estuarine fall bloom mesocosm experiment”. My review is as follows: This study shows that warming and acidification showed combined effect on the net DMS production during a temperate estuarine fall bloom mesocosm experiment. These data are important for the development of the knowledge about the effects of warming and acidification on the fate of DMSP and DMS in the marine environment, especially in the coastal area.

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The experimental design and discussions seems sufficient for the objective to evaluate the effects of acidification and warming on DMS production. I consider the paper “Contrasting effects of acidification and warming...” by Bénard et al., as acceptable after technical corrections.

Author’s response to general comments: We thank the reviewer for the evaluation of the manuscript and the positive comments.

Comments: P3 L87 “by terrestrial vegetation. while the ” would be “by terrestrial vegetation, while the” ?

Modification (line 87): Old sentence: In addition to the oceanic sink, a similar fraction of anthropogenic CO₂ emissions has been captured by terrestrial vegetation. while the anthropogenic CO₂ remaining (45% of total emissions) in the atmosphere (Le Quéré et al., 2013) has led to an estimated increased greenhouse effect of 0.3–0.6 W m⁻² globally over the past 135 years (Roemmich et al., 2015).

New sentence: In addition to the oceanic sink, a similar fraction of anthropogenic CO₂ emissions has been captured by terrestrial vegetation, while the anthropogenic CO₂ remaining (45% of total emissions) in the atmosphere (Le Quéré et al., 2013) has led to an estimated increased greenhouse effect of 0.3–0.6 W m⁻² globally over the past 135 years (Roemmich et al., 2015).

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