

Interactive comment on “Effect of ocean acidification on the benthic foraminifera *Ammonia* sp. is caused by a decrease in carbonate ion concentration” by N. Keul et al.

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The paper presented represents an interesting review of the literature and interesting new data. However, addressing the following comments could improve the present version

1) A couple of papers recently published need to be incorporated: a) Glas MS, Fabricius KE, de Beer D, Uthicke S (2012) The O₂, pH and Ca²⁺ microenvironment of benthic foraminifera in a high CO₂ World. PLoS ONE 7: e50010 b) McIntyre-Wressnig A, Bernhard JM, McCorkle DC, Hallock P (2013) Non-lethal effects of ocean acidification on the symbiont-bearing benthic foraminifer *Amphistegina gibbosa*. MEPS 472: 45-60

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c) Reymond CE, Lloyd A, Kline DI, Dove SG, Pandolfi JM (2013) Decline in growth of foraminifer *Marginopora rossi* under eutrophication and ocean acidification scenarios. *Global Change Biology* 19: 291-302

2) Please take a closer look at Sinutok et al. there seem to be some issues with the methods used which cast some doubt on the results. For example, even the *S. controlis* foraminifera showed negative growth in this experiment, and the number of symbionts is exceptionally low. It appears experiments were conducted under very artificial conditions with weakened individuals. 3) Uthicke and Fabricius : Please note that we also conducted calcification experiments with *pure* CO₂, not just with water from the vent. This was done to test if the effects observed may be due to an unknown factor. Results suggest this was not the case and we did observe an effect of CO₂. 4) Vogel and Uthicke: You focus on our results for *Marginopora*, but there were also two further species investigated. 5) Page 1158, line 4: I think here you mean to cite Vogel and Uthicke, not Uthicke and Fabricius?

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