

Interactive comment on “Daily variation in net primary production and net calcification in coral reef communities exposed to elevated pCO₂” by Steve Comeau et al.

Anonymous Referee #2

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p.s. The more I think about it, the more concerned I am that we, as a field, might be missing some really important changes if we are measuring Pnet via O₂ flux only or DIC flux only. The photosynthetic quotient does appear to be quite (potentially) labile for reef organisms, and probably for many others. In this study, Pnet can only be estimated via O₂ flux, not DIC flux, but as work by Langdon and Atkinson (2005) shows, examining one parameter or the other can yield radically different conclusions about how Pnet may or may not change under perturbation. The authors acknowledge and discuss this issue, but I would encourage them to emphasize the issue to a much greater extent—this question probably should dictate how the field measures Pnet going forward (both O₂ flux and DIC flux, ideally), and the authors have an excellent opportunity to

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make that case here.

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