

Interactive comment on “Seasonal, daily and diel N₂ effluxes in permeable carbonate sediments” by B. D. Eyre et al.

Anonymous Referee #3

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This paper presents the results of a robust and well-constructed experiment that is built upon a well-supported body of research at the same site. The research expands our understanding of sediment denitrification/N₂-efflux rates at this, and related sites (i.e., carbonate sands), while also addressing the potential role of different OM sources, including those associated with coral spawning events.

While I understand the author's reasons for excluding data in incubations with DO greater than 96% saturation, I question the impact of excluding these data; specifically whether that exclusion will systematically shift the denitrification rate results.

Outside of minor editorial revisions noted below, I find no reason to exclude the article and consider it to be well worth accepting for publication. – Note that there is a typographical error in the citation of Nowicki (1994), which is cited as Norwicki, 1994. –

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The use of lower-case “l” for litres, rather than the upper case “L” creates confusion, as the lower-case “l” can be confused with a number one (1). – I prefer the use of italics and lack of hyphenation when writing “in situ” and “ex-situ”, though I must admit I am not sure of the journal's preference and could not find said preference in the instructions to authors at http://www.biogeosciences.net/submission/general_terms.html
– Table 1 is poorly formatted and it is difficult to discern between the four sampling campaigns listed; adding a space between each campaign would address this issue. I have similar issues with reading tables 2, 4 and 5: the large number of results included combined with the formatting used makes it difficult for the reader to clearly distinguish between table elements (i.e., rows of results)

Interactive comment on Biogeosciences Discuss., 9, 17437, 2012.