

Interactive comment on “Water quality, isoscapes and stoichioscapes of seagrasses indicate general P limitation and unique N cycling in shallow water benthos of Bermuda” by J. W. Fourqurean et al.

Anonymous Referee #1

Received and published: 13 September 2015

This manuscript presents an extensive collection of data on the nutrient and isotopic compositions of seagrass on the Bermuda platform. This research is important as it contributes a large set of data to better understand nutrient cycling in seagrass meadows. However, the results presented here are specific to the Bermuda Platform. They link the nutrient and isotopic status of different seagrass species to potential nutrient sources (P being mainly limiting and of terrestrial origin), light availability and geomorphology of the platform. The authors propose that mapping these relationships into isoscapes and stoichioscapes may offer valuable tools to assess ecosystem processes. Concomitant with the two rounds of reviews in another journal prior to this one, for the most part the quality of the manuscript is good. However, I found it difficult

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to assimilate all the data that was presented and this contrasted with the simple take-home message given in the abstract. The manuscript could therefore be shortened to some extent and some of the high resolution data could be annexed to streamline the paper. What I found the most interesting and original were the very low $\delta^{15}\text{N}$ values observed. Unfortunately, it is a pity that one can only speculate on the reason why these very low $\delta^{15}\text{N}$ values occur.

Interactive comment on Biogeosciences Discuss., 12, 9751, 2015.

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