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Discussions

Interactive comment on "A comparison of bacterial communities from OMZ sediments in the Arabian Sea and the Bay of Bengal reveals major differences in nitrogen turnover and carbon recycling potential" *by* Jovitha Lincy and Cathrine Sumathi Manohar

Anonymous Referee #1

Received and published: 15 July 2020

Review Report: Manuscript title: A comparison of bacterial communities from OMZ sediments in the Arabian Sea and the Bay of Bengal reveals major differences in nitrogen turnover and carbon recycling potential Authors: Jovitha Lincy & Cathrine Sumathi Manohar

This study describes the diversity of microbes in sediments below the OMZ of Arabian Sea and Bay of Bengal, based on V1-V3 region of the 16S rRNA gene using 454

pyrosequencing data. The phylogenetic information is interesting, and the authors have done further analysis to extrapolate the information to find the functional capability of the microbes present. The manuscript is hard to follow intermittently, however attempts have been made to correct those error which are minor in nature. The manuscript is interesting and will be of use to understand the biogeochemistry and the community composition of the sediments underlying the OMZs.

A few minor comments are listed below, most of these comments are also on the manuscript.

1. Line 202 Not clear what the authors are trying to say here. Do they mean: While TOC values are within the ranges of values found in OMZ sediments, the TIC values are different and could be attributed to the difference in CaCO3 content?.

2. Line 218: this sentence is not complete, what was the result of SILVA? the same result, if so specify that!

3. Line 244: Hard to understand what the authors are saying here!

4. Line 360: Are you saying this is a nitrogen fixer? What is the relevance?

I am attaching a pdf version of the paper here as a supplement, with my edits here. Editors please make sure the comments and edits are anonymous before sending to authors.

Please also note the supplement to this comment:
https://www.biogeosciences-discuss.net/bg-2020-162/bg-2020-162-RC1-supplement.pdf

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