

## ***Interactive comment on “Glacial-Interglacial changes and Holocene variations in Arabian Sea denitrification” by Birgit Gaye et al.***

**Birgit Gaye et al.**

birgit.gaye@uni-hamburg.de

Received and published: 21 September 2017

Dear reviewers,

We thank the four reviewers for their valuable suggestions and the time taken for the reviews. There are four major points evolving from the reviews which we will be able to address in a revised version:

- A chapter/paragraph on Arabian Sea water masses and circulation (surface and deep) has to be added which will also help to improve the discussion of results with respect to local vs. remote forcing.
- The introduction to the N cycle will be enlarged with more details and references to earlier work.

C1

These first two points will lead to a slight reorganization of the initial chapters Introduction and Study area

- More information on the model has to be presented in the methods and a model-data comparison has to be shown and discussed.
- The major trends in AS nitrogen cycling and the new contributions to this have to be emphasized throughout the manuscript (some of the suggested literature will help).

Most of the many minor suggested changes, such as adding dates in many places and focus more on eastern Arabian Sea circulation, change references and figures, will be made and will help to improve and make the ms. more concise.

---

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2017-256>, 2017.

C2