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Interactive comment on "Water column biogeochemistry of oxygen minimum zones in the eastern tropical North Atlantic and eastern tropical South Pacific Oceans" *by* C. R. Löscher et al.

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Dear editor, attached is the revised manuscript and the point-by-point answers to the reviewers. We applied some re-structuring to the whole manuscript in order to better integrate the different sections and to increase the readability. We included a table of contents as requested. Your specific comments were addressed as follows:

Ensure that terminology and descriptors used are consistent through all sections

We unified the style and units for e.g. concentrations and we added a table defining the categories of different oxygen ranges that were used in the text.

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The substantial overlap in the introductions to the different sections should be smoothed into the whole.

In order to address this comment, we restructured some sections and removed the repetitive parts.

Unify the style of writing for the whole review (pay particular attention to section 8 and section 5).

We added a 'background section to the 'Trace gases' section in order to unify the style, former section 5 and section 6 were merged and restructured.

In the same manner provide the same "treatment" to different sections e.g. some sections end with useful directions for future research whilst others don't. If there are controversies (e.g. the standing controversy on pathways of N2 formation in OMZs) this is where these can be mentioned.

We removed the future directions from the single sections and included them into the outlook section. We, however, do not agree that there is controversy about N2 formation in terms of denitrification vs. anammox. We rather observe that different ways of N loss take place in different systems. In order to clarify, we included the paper by Ward et al. on denitrification in the Arabian Sea.

The subject matter of sections 5, 6, 8 and to some extent 7, are closely related so ensure that there is sufficient merging to keep the flow between these sections.

We addressed that by restructuring former section 8, and merging former sections 5 and 6. We still think that trace gases and sulfidic events both need to be addressed in single sections. The fact that the cryptic sulfur cycle provides a link between sulfur and nitrogen cycle is discussed in section 5. We also briefly state in the N cycle section, that N2O is produced during nitrification and denitrification, however, O2 dependency and OMZ trace gas dynamics require a separate section.

Lastly because a review must be of use to the general reader and not only to specialists,

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ensure that where applicable, the results of the different sections are placed within a broader context.

The topic of climate- biogeochemistry interactions in the tropical ocean is for sure of interest to several readers. Thus we now aimed to clarify the potential impacts of ocean deoxygenation as a major issue regarding climate change.

Interactive comment on Biogeosciences Discuss., 12, 4495, 2015.

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