

## ***Interactive comment on “The role of ecosystem function and emergent relationships in the assessment of global marine ecosystem models: a case study with ERSEM” by L. de Mora et al.***

**L. de Mora et al.**

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Dear anonymous referees #1 and #3, Dr. Robson, and Dr. Hargreaves,

Thank you for taking the time to read the paper and for your comments. Attached to this interactive comment are a pdf document detailing our response to individual comments, a pdf showing the most recent version of the paper in discussions format, the latex and bibtex files and the updated figures.

Many of the comments relate to the overselling of the work in the title, so we've decided to revise the title to a more accurate description of the study:

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"The assessment of a global marine ecosystem model on the basis of emergent properties and ecosystem function: a case study with ERSEM"

We hope that this change will lead to less confusion for readers.

The majority of the requested changes from anonymous referee #1 were about toning down the optimism about the power of emergent property validation. We were happy to implement these changes. There were also some clarifications that were added. Unfortunately, we were unable to locate the appropriate Karl et al paper mentioned in point 7, but would be willing to amend our text if more details about this work can be shared with us.

We found the comments from the second referee, Dr. B. Robson, to be very positive. We're glad that you were happy that we could retain the current structure even though it is somewhat non-traditional. However, after going through the comments from anonymous referee #3, we decided that a restructuring would be of benefit anyway. Regarding the text seeming too dense, I feel that this is a regular issue with the Copernicus discussions format. The final GMD format has two columns per page and the images are placed appropriately near the text. To me, this makes it feel more spacious and clean, while reducing the page count. As the discussion section has also been expanded, sub-headings were added to the discussions section.

The comments of anonymous referee #3 were very in-depth, and we've done our best to address all of them, in the response section below. We're grateful for such a detailed review, and we feel that the resulting changes have resulted in a much stronger paper.

Once again, thanks for taking the time to read the paper, we are grateful for your honest opinions.

Sincerely,

L. de Mora, M. Butenschön, J. I. Allen

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Please also note the supplement to this comment:  
<http://www.geosci-model-dev-discuss.net/8/C2928/2015/gmdd-8-C2928-2015-supplement.zip>

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Interactive comment on Geosci. Model Dev. Discuss., 8, 6095, 2015.

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