

### **Rev. #1 E. Bonsdorff**

The manuscript/discussion paper by Rabalais, Diaz, Levin, Turner, Gilbert & Zhang on coastal hypoxia, its history and development, its causes and consequences, and possible remedies, offers an excellent overview of the topic on a variety of scales, from global to regional to local. As I have not seen any of the other manuscripts intended for the same thematic volume/issue, I cannot say anything about potential overlaps (but I feel any overlaps between reviews are not a real problem). The main benefit of this review is that it offers valuable insights both for the Expert in the field, and for the Beginner and/or Administrator who needs to learn things from trustworthy sources fast. The ms is very well written, the literature is comprehensive, and the field is covered in a logic and readable way. So in principle I strongly recommend publication, basically as it is, with two (minor) recommendations:

**Reply re overlap:** There is overlap among the various papers for the SCOR WG synthesis. This chapter has tried to refer to the other chapters as much as possible where relevant. I.e., instead of going into the details of effects, this ms refers to others by Levin et al., Ekau et al., Gooday et al.; instead of going into the biogeochemistry in detail refers to the Middelburg and Levin chapter. The advantage of being one of the last submitted in the series!

two (minor) recommendations:

1) The authors rely heavily on their own papers, and I feel the author-team should consider reducing the amount of self-citations (which is not to say that their work isn't valuable - on the contrary; they are The Experts!): Increasing the role of other papers might make this paper even more valuable for the international audience!

**Reply:** We have added citations to broaden the literature, much of which we have summarized over the years.

2) Based on (1) it also follows that some figures/graphs could perhaps be removed/ deleted (or replaced by others from other sources) - the manuscript has 25 figs, and I would recommend that some are deleted.

**Reply:** Several figures have been removed. However, in response to this and other requests for fewer figures, we may have opted to leave out those that are not self-cited in deference to those we think might be more illustrative (i.e., disturb the balance of self- vs. non self-cited works, which were at one time balanced).

Major detail:

Chapter 9.4 Baltic Sea (p 9397 ff): Needs revision and updating (although recent papers by Conley et al 2009 a & b are included); the chapter now relies too heavily on one basic source, and I would welcome references to the HELCOM-reports on the Baltic Sea Action Plan (HELCOM 2007) - they are all freely downloadable at [www.helcom.fi](http://www.helcom.fi)

**Reply:** We have broadened our treatment of the Baltic Sea, but still find recent summaries by Conley and his colleagues to be the best.

Minor detail(s): Mistakes among the references; (a) Tyson & Pearson (eds): Info missing (p 9425; line 33-), and (b) Vahtera E 2007 (Ambio); p. 9426, line 8-): Should be Vahtera et al, i.e. a long list of co-authors (and in this specific case, that is vital, as the papers was the product of an international ws on the issues described in the paper).

**Reply:** These, along with many others, have been fixed.