

# ***Interactive comment on “Effect of hypoxia and anoxia on invertebrate behaviour: ecological perspectives from species to community level” by B. Riedel et al.***

## **Anonymous Referee #1**

Received and published: 28 November 2013

In this manuscript Riedel et al. report behavioural reactions to hypoxia of coastal benthic macrofauna, inducing small-scale anoxia with a benthic chamber and recording pictures every 6 minutes with a time-lapse camera. Authors also measured DO, sulphide and temperature every minute.

Authors did a very detailed description of behavioural responses for a total of 302 individuals belonging to 32 species. It represents a titanic work analysing over 10000 images. As the study includes a high range of species and behavioural responses, it is quite long and in some parts difficult to read.

Overall is a well-written work that presents a big range of behavioural responses of

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benthic macrofauna to hypoxia and anoxia. Figures are nice and represent a good summary of the manuscript's main results (specially fig. 1-3).

Specific comments:

P. 14335. L. 19. Maybe here a definition of anoxia would be appropriate.

P. 14336 L. 29-P.14337 L.2. Although behaviour could be an early-warning indicator of hypoxia, it is difficult to observe in natural environments.

P. 14340. L.11. Add “and” after the comma.

P. 14370 L. 20 and P. 14371. L. 18. I think it should read “scape” instead of “flight”, to make it easier to understand (here and elsewhere in the manuscript)

P. 14372. L.2. Delete “the”

3.3.2. Predator-prey interactions. It could be interesting to mention the experiment number where these interactions took place. If the video is the webpage, could help readers to visualize it.

Tables Table A2. This table is quite difficult to understand. I suggest summarize it and make it clearer.

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Interactive comment on Biogeosciences Discuss., 10, 14333, 2013.

**BGD**

10, C6876–C6877, 2013

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