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Interactive comment on "Short-term post-mortality predation and scavenging and longer-term recovery after anoxia in the northern Adriatic Sea" *by* M. Blasnig et al.

Anonymous Referee #2

Received and published: 5 June 2013

Overall, this is an interesting field experiment, but given the small scale and limited replication, I do not think you have enough data to support many of your conclusions.

Abstract

First sentence is not clear. What are the 'most features'? You do not explain this anywhere.

Line 4. Delete here.

Line 19. Change 'took place' to occurred.

Introduction is too long. It could be reduced by at least 1/3.

Methods

3.2 the fishes. How did you determine the number of individual fish? Your methods say you could not tell them apart. Could 22 observed individuals be only 2 or 3 fish?

I do not think your use of Chi Square is correct. You do multiple comparisons using the same data over again. So you have to correct your alpha levels. Also, what size was the chi square table? It is not at all clear as to what Table 1 has tested. This analysis is really not needed.

Discussion

Line 12. Delete very

Line 13. Change 'harmful fishing activities' to bottom trawling.

Line 25. Delete clear.

While I think you are correct on the reason why fish arrived first, your observations are from a 0.5 m2 even. So it is hard to say fish arrived first because they swim fast. They could have been just a few cm away. Arrival time of any species would be a combination of mobility and also size of the disturbed area.

To put the post anoxia scavenging into better ecosystem context, I think you need to discuss what level of scavenging would occur on an undisturbed bioherm. Surly, the species you have must be feeding most of the day under normal conditions.

Longer term recovery

Line 18. Delete the sentence on the size of the Gulf dead zone. It is not needed and seems out of context.

It is hard to imagine that no recovery was observed after 2 years. Was this a function of image resolution? Would you have found recruits if you collected samples? You need to explain why there was no recovery. Much of what you say in this section would

apply to all the bottom around your experimental area. So was the surrounding bottom colonized?

While I think bottom trawls are destructive, I do not think you can use them in any way to explain why your disturbed area did not recolonize.

It seems much of what you observed could be related to the small area you examined and spatial variation. Delete the Alaska reference. It is not the same environment. I would also recommend deleting the next sentence too.

I disagree that all your results are valid for lager spatial scales. I will agree with the timing of arrival but not the recolonization. In the long term, given the large area and number of hypoxic events, if your conclusions are correct then I would expect there to be no bioherms in the areas impacted by hypoxia. I do not think this is the case.

Manuscript Evaluation Criteria

1. Does the paper address relevant scientific questions within the scope of BG? YES
2. Does the paper present novel concepts, ideas, tools, or data? NO
3. Are substantial conclusions reached? NO
4. Are the scientific methods and assumptions valid and clearly outlined? VALID BUT NOT CLEARLY OUTLINED
5. Are the results sufficient to support the interpretations and conclusions? NOT REALLY
6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)? YES

7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution? YES
8. Does the title clearly reflect the contents of the paper? YES
9. Does the abstract provide a concise and complete summary? YES
10. Is the overall presentation well structured and clear? NO
11. Is the language fluent and precise? YES
12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used? OK
13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated? TABLE 1 IS NOT NEEDED
14. Are the number and quality of references appropriate? SEEMS TO BE OVER CITED
15. Is the amount and quality of supplementary material appropriate? YES

Interactive comment on Biogeosciences Discuss., 10, 4367, 2013.