|  |
| --- |
|  |
| Book Name: | [**Geography, Earth Science and Environment: Research Highlights**](https://www.bookpi.org/bookstore/product/geography-earth-science-and-environment-research-highlights-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5296** |
| Title of the Manuscript:  | **Ecological Changes over a Century in the Western Coastal Area of Jakarta Bay: Based on a Short Core Sample** |
| Type of the Article | **BOOK CHAPTER** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**AIP Conf. Proc. 2026, 020019 (2018).**

[**https://doi.org/10.1063/1.5064979**](https://doi.org/10.1063/1.5064979)

|  |
| --- |
| PART 1: Comments |
|  | Reviewer’s comment**Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | The study of reconstruction of the ecological condition based on meiobenthic species is relevant and important in terms of understanding the patterns of ecosystems` functioning. The problems that were highlighted in the study include the effects of eutrophication and heavy metals contamination on the biological communities. The approach of applying of biological responses to the environmental changes are reasonable. The interpretation of such interrelations are essential for the prognostic analysis. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | If you have already published this study under the same name – I`d recommend rephrase it. You study covers the period of 160 years - so this is significantly more than a century!For ex: Reconstruction of ecological changes in the Jakarta Bay based on the foraminifera index… |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | Abstract look good. |  |
| **Is the manuscript scientifically, correct? Please write here.**  | The manuscript is generally well written and sounds as a reliable study. I have some suggestions that authors may take into considerations:1. The sentence “The sediment holds biotic properties like foraminifera and abiotic properties like heavy metals.” Does not seem correct as sediments possess much more other properties than foraminiferas and heavt metals; try to rephrase this sentence to show that the focus of your study is on these specific properties;
2. Explain this bbreviation: VOC expansion in Java
3. It is not correct to call “bottom sediment” as a compartment – this is a habitat;
4. Whi are “Moodley and Hess” in the introduction? Please, add the correct reference to this;
5. It is not clear from the introduction how eutrophication is connected with heavy metals; there is not relations between these two factors… add the strong evidence of the sunergies; probably you mean that organisms might be more effected by heavy metals in the conditions of higher eutrophication? So, please, review and change this statement “Among factors triggering hypoxia, eutrophication is affected and/or synergized with metal contaminants in a waters area.”
6. “In many cases, hypoxia co-occurs with: low dissolved oxygen (DO) and low pH conditions [5]. Hence, some metals are more toxic in acidic conditions [6].” The second sentence is not the result from the first one. Why do you state this?
7. The higher concentration of heavy metals in the western part of the Bay might occurred because of other that hypoxia reasosn; maybe that was because the same sources of nutrients and heavy metals occured in the westen part?

Methods:1. What was the length of the core? What makes you think that the age of the sediment collected corresponds to 100 years?
2. If your affiliation if the same as you reference to in the methods (Indonesian Institute of Sciences) you probably do not need to mentions this.
3. Add section in the methods about data analysis methods (statistics).

Results1. You date the sediment by 1856 – why in your title you indicate the 100 years period?
2. How Puerto Rico is relevant to your study? You cant use this referernce (from the study from another side of the globe) for comparison of your results. Please, use local studies on eutrophication from the local area instead to support your findings. You can also look at the studies that compar the heavy metals, eutrophication and foraminifera indexes for the discussion point.
3. Figure 2 – why have you combined the Zn and A-E index data on one figure and provided data on other heavy metals on the other? It does not sound logic.
4. In this sentence (In general, the vertical distribution of Ammonia and Elphidium on the western coast of Jakarta Bay indicated the decreased to the upper layers of sediment deposited in 2009.) something is missed after word “decreased”. In addition, The figure 2 represent increasing of the A-E index (does this mean that foraminifera were decreased? If yes, add this to the methods… ). Revise this sentence. Explain why the A-E index in late 1990-2000 was actually nearly same as in 1860. We can observe same pattern of distribution for metal concentration and idex on figure 3. Can you explain this? Why is this happening?

Conclusion:1. With regards to this sentence: “The increased of water acidity can lead to the increased of toxicity in some metals» please, articulate your conclusion based on the aim of your study. You have not study the toxicity. You can state more about this – if you consider this as an important threat – in discussion.
 |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | I` d add more references supporting the eutrophication load in the region and those that evident about the toxicity of the metals in higher pH conditions. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes |  |
| Optional/General comments | See above |  |

|  |
| --- |
| **PART 2:**  |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?**  |  |  |

**Reviewer details:**

**Anastasiia Snigirova, Flinders University, Australia**