

Response to comments (third revision)

Comments to the author:

Dear Dr. Ray:

I have read your revised version and I am happy to inform you that your paper is almost ready for publication. A few technical corrections are needed though. I list these below.

With best regards,

Jack

Response:

Dear Prof. Middelburg,

We thank you very much for supporting our work throughout the review journey.

We honestly feel that after series of corrections on those constrictive comments from you and the reviewers has made the manuscript scientifically robust, meaningful, and surely a well-read iteration.

In this version, we have accepted all of your edits with few minor restructuring of sentences.

Thank you once again for accepting this work.

With best regards

Raghab (on behalf of co-authors)

Line 41: ...ecosystems that have the potential to climate change mitigation...

Corrected

Line 69: Most of the Sediments changes.... Corrected

Line 140: ORP is used without explanation. Introduce the full term here [Full name is given now](#)

Line 273: ...showed wider variations... Corrected

Line 384: allochthonous refers to material from elsewhere, but benthic algae are locally produced. Or do you specifically mean resuspended benthic algae.

Edited as

Similar values of $\delta^{13}\text{C}$ in the surface water POC upstream (-25.9% , Table S2) and sediment OC at the bare sediments and pioneering mangroves (mean -26%) might reflect resuspended benthic algae as major sources of SOM.

Line 407-409: The logic of this sentence needs attention: hypoxic or anoxic conditions I presume and I do not see how ..and creating connect with the first part of the sentence.

Edited as

In Kenya, greatest OC concentration was measured where the crab population was maximum, particularly at low tide when the presence of water with low oxygen saturation covered the bottom of the burrows that avoided oxidation and created an extension of the coastal marshes sediment-air interface favoring greater OC (Kristensen, 2004; Smith III et al., 1991).

Line 473: greater biomass and sediment TOC, porewater DOC....Corrected

Line 493: pelagic continental shelf sediments do not make sense. Delete pelagic ~~deleted~~