

Dear Dr. Gazeau,

Thank you for your comments. We appreciate you taking the time to provide your valuable feedback. Below is our response to your comments. Please note that we have not provided responses to simple grammatical corrections. We hope this revised manuscript meets the standards of Journal of *Biogeosciences*.

Line 24

Not clear, why don't you mention lowered omega levels?

The sentence and the following one have been revised as shown below for clarity.

"The supply of riverine water had a minor effect on pH but contributed to coastal acidification, as indicated by a decrease in the calcification index (Ω_{arg} , the aragonite saturation state) by 0.09 ± 0.01 over the past 20 years, even after accounting for the buffering effect of riverine Total Alkalinity, which reduced the overall decrease by approximately 71%.". (Line 24-26)

Line 24

not clear wht means this index

The explanation has been added as mentioned in the above response.

Figure 2

Define

We have added the explanation as "Empirical Orthogonal Function (EOF)". (Line 221)