

This work presents in situ measurements of NEP across a gradient of environmental conditions in coral reefs of Hong Kong. The study is valuable in that it captures high-resolution, community-scale metabolism in a system characterized by strong anthropogenic stressors, and contributes to a relatively limited body of work examining metabolic variability in marginal coral reef environments. The manuscript is generally well written, but there are several areas where the interpretation and framing needs to be strengthened.

Major comments:

1. The manuscript consistently reports negative NEP across sites and seasons, but the ecological implications of persistent net heterotrophy are not fully developed. The relationship between NEP and NEC is not discussed and should be introduced earlier, then revisited in the discussion. Also, please contextualize these results against studies outside of Hong Kong.
2. The concepts of “marginal” vs “extreme” environments are introduced but not consistently applied. Clarification of how each site fits within this framework would strengthen the manuscript.
3. A substantial proportion of the dataset was removed during preprocessing. Can you provide additional justification and discussion of how this may affect results?
4. The designation of Sham Wan as a control site is not fully convincing given its low coral cover and different benthic composition from other sites.
5. The explanation for increased variability in the wet season is vague and should be expanded with clearer hypotheses and looped into the abstract. For example, lines 432-433 call out some potential conditions that would drive increased variability in NEP in the winter, but it seems you could access the data (or already have it) to test this hypothesis.

Minor comments:

Abstract: consider including potential explanations for increased NEP variability in the wet season.

Figure 1: figure is blurry

Lines 100-101: But in the intro you say that Pearl River discharge reduces water clarity and thus corals don't live near the estuary.

Lines 134-135: Begging for a reference

Lines 284-291: I may be misinterpreting this but it appears that salinity values for the dry season may be repeated. More generally, the presentation of environmental variables as a sequence of ranges and means is somewhat dense, and this section could be streamlined or synthesized to improve clarity for the reader.

Section 3.1.3: This section reads somewhat as a standalone description. While atm conditions are referenced elsewhere in the ms, their relevance and purpose in this section are not clearly articulated. Consider linking more explicitly in discussion.

Figure 3: The colors on the graphs do not match the colors in the figure description.

Line 397: Avoid using baseline in a heavily impacted system.

Lines 403-404: What about the role of allochthonous OM inputs in driving negative NEP?

Line 417: Here you imply that negative NEP is bad for coral reefs, which makes sense, but I think you need to set this up more clearly in the introduction.

Lines 426-427: Vague explanation. Please expand.

Lines 536-537: The implication here is that NEP results inform NEC, but since you did not measure NEC, I think you need to make that connection more clear.