

Dear Reviewer:

Thank you for your comments concerning our manuscript, those comments are all valuable and very helpful for revising improving our paper, as well as the important guiding significance to our researches. We have studied the comments carefully and have made correction which we hope meet with your approval. Revised portion are marked in red in the paper. The responds to your comments are as follows.

1. The paper evaluates 18 indices and appears to suggest that the 8 diatom-based biotic indices are more "accurate" than the others. Acknowledging that there might not be a single, clear winner from the group, perhaps the paper should provide a recommendation of the 3 best indices as part of the conclusions?

Response: Thank you for your valuable comments. In conclusion, we selected 3 diatom indices which are most suitable for Tangwang River. The following has been added to the manuscript. "While IPS and CEE have the most evenly distributed evaluation results, including five categories from "high" to "bad", IPS and WAT showed a significant correlation with the concentration of TP in the river. Therefore, IPS, CEE and WAT should be the most suitable diatom indices for Tangwang River." (In red)

2. Figure 5 is unclear and some additional axis labels might help. Alternately, the correlation coefficients could be displayed inside the coloured circles, to align with the text in Lines 329-341.

Response: Thank you for your valuable comments. We tried to display the correlation coefficients in colored circles as you suggested, but we couldn't find a suitable package. If you still feel the need to make changes to the picture, we will try changing it into a table.

3. The paper would also benefit from some images of the most prevalent diatom species recorded by the research, if available, near Lines 192 - 209.

Response: Thank you for your valuable comments. In order to improve work efficiency during the process of diatom identification, we did not take photographs of the samples. We will pay attention to this aspect in our future work.