

Dear reviewers,

First and foremost, we wanted to thank you both for your kind words and feedback on the manuscript. We have incorporated all general comments as well as suggestions.

We have organized some answers to the specific questions that were raised:

- Question: “Table 1: Chl-c1+c2: MgDVP has very close retention time to chl-c1 and c2. All laboratories measured as only c1+c2?”

Answer: It is true that MgDVP has a retention time that is very close to that of Chl-c1 and Chl-c2, which can complicate separation depending on the analytical method applied. A common approach across many laboratories is therefore to combine these pigments. Since most of the datasets in this database did not separate, we chose to report them as a combined pool to ensure consistency and comparability across datasets.

- Remark on traceability of HPLC methodology:

Answer: Since the last manuscript, all co-authors were asked to provide all the information they could regarding the laboratory’s methodologies for the various cruises. This has resulted in a document, added to the supplementary material of the manuscript as well as the DOI for the data. Thank you for highlighting this as a possible issue for the scientific community.

Again, thank you for taking the time to give constructive feedback - all the comments and suggestions have been greatly appreciated. We hope that the revised manuscript has improved.

List of specific changes:

- Pigment abbreviations were inconsistent and have been fixed.
- A few sentences were improved for clarity throughout the manuscript.
- Colors on figure 2 and figure 3 were changed for better clarity.
- HPLC procedure was added as supplementary material (S2).
- Two additional co-authors have been added (Maria A. van Leeuwe and Jacqueline Stefels). They have read and provided feedback for the manuscript before the end of this revision. Their inclusion at this late stage was due to early miscommunication over e-mail.