

Dear Prof. Emilio Marañón,

Thank you for providing valuable comments and supporting the publication of this paper with all the reviewers. We have reviewed the manuscript now titled "The bottom mixed layer depth (BMLD) as an indicator of subsurface chlorophyll-a distribution" by addressing the two following comments:

"please consider the following minor revisions when preparing the final version of your paper:
- the title could be more complete. For instance, "The bottom mixed layer depth (BMLD) as an indicator of subsurface chlorophyll-a distribution", or "The bottom mixed layer depth (BMLD) as an indicator of the subsurface chlorophyll-a maximum""

Thank you for suggesting a change in the title. We agreed to change the title into "The bottom mixed layer depth (BMLD) as an indicator of subsurface chlorophyll-a distribution".

"- As noted by the Reviewer, there are some inconsistencies in the labelling of different sections, figures, etc. due to changes in structure through the revision process. This must be carefully revised before final submission."

We corrected the numbers of sections, the number of figures in Appendix A and in the manuscript.

Moreover, while revising the manuscript, we also recognized the importance of adding the following sentence in this final version:

Section 2.3, lines 197-199: "It is important to notice that this method does not determine whether the water column is stratified, and it can be applied to profiles exhibiting a pycnocline described by high-resolution, equally distant observations."

We have also reviewed the introduction (Lines 41-55, Lines 120-125) and a few more changes in the Discussion section "climate change".

We changed "upper" and "lower" in Figure 2 with "surface" and "bottom" to be consistent with the terminology used by Wihsgott et al., 2019, Palmer et al., 2013, Sharples et al. 2001.

Sincerely thank you.

Arianna Zampollo