First, we would like to sincerely thank the reviewer for their valuable time and effort in reviewing our manuscript and considering it after the 'minor revision'. The comments and suggestions provided are very helpful and have significantly contributed to improving the quality of the manuscript. The reviewer's comments are shown in blue, and the corresponding revisions have been incorporated into the revised manuscript.

1. Caption Figure 1: The red dot is not visible, and the yellow star mark is not visible on the white background, so it is difficult to visualise.

Response: Thank you for pointing this out. We have revised and improved the figure accordingly. We hope that the updated figure is now clearer and easier to visualize.

2. Line 345-350: What are the dates?

Response: Thank you for pointing this out. The dates (2nd September to 7th September 2023) were already mentioned in the text; however, to improve clarity and avoid any ambiguity, we have now explicitly included them in the text.

3. Line 351: Significance

Response: We modified it by 'Importance.'

4. Line 365: Is it the total water column for the precipitation?

Response: This is not precipitation; rather, it refers to Total Column Water (TCW), which represents the sum of water vapor, cloud liquid water, cloud ice, rain, and snow integrated over the atmospheric column from the surface to the top of the atmosphere.

5. Line 368-372: Did the meso-scale eddy and MHW coincide?

Response: Yes, the mesoscale-eddy and MHW coincide here, which makes the cyclone 'Daniel' the deadliest recorded cyclone.

6. Line 392 for Figure 3: The dates on panels a, b, c, and d may not be correct. The date fr the chlorophyll difference is not mentioned. Ekman pumping is positive in (f), which is associated with the downwelling at the chlorophyll location. So it is not clear to me how Ekman pumping is associated with the high chlorophyll concentration. It would be more meaningful if the Ekman pumping showed as a difference, like chlorophyll.

Response: The dates shown in Figure 2 are correct. The reviewer may have been confused by the repeated dates; however, SWOT data are not available on a daily basis. Fortunately, we obtained SWOT observations on the specific dates when the eddies were covered. Therefore, we used these dates to represent warm core eddy 1 and warm core eddy 2 and to facilitate comparison with the AVISO SLA data.

We now present daily Ekman pumping fields (shown in Figure R1), which clearly show that during the passage of the cyclone, positive Ekman pumping (i.e., upwelling) dominates, leading to increases in chlorophyll concentration. It is important to note that downwelling starts from 10 September, when it is already over the land, as seen in the new SI Figure (also shown below).

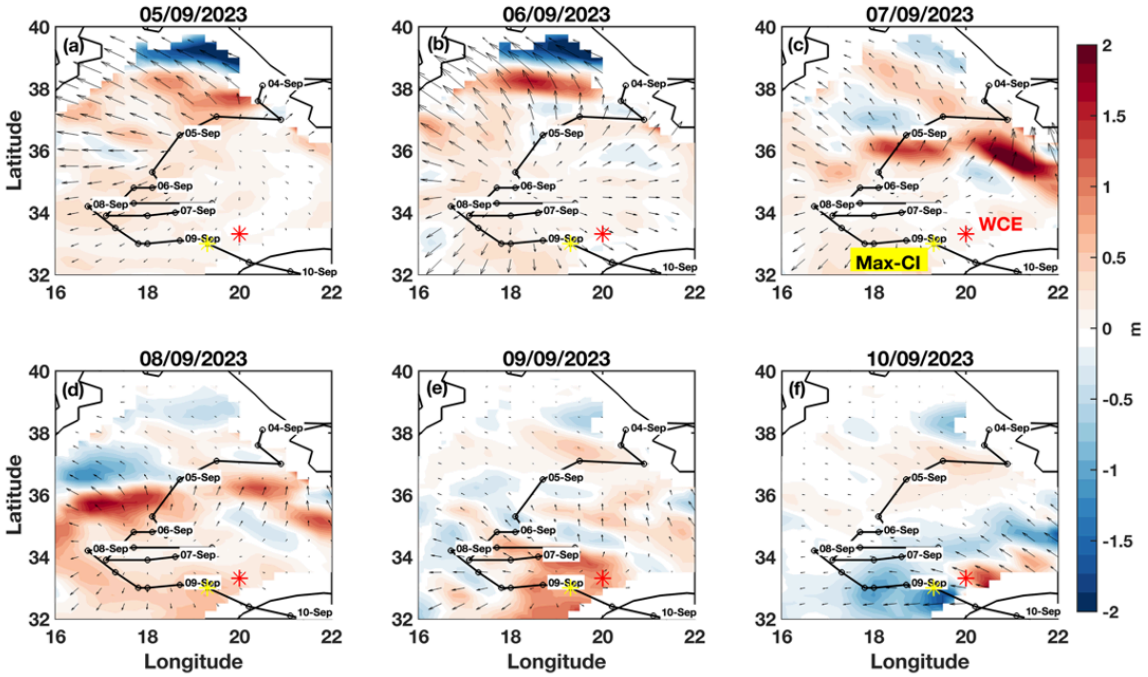

Figure R1: Daily Stern Ekman pumping (m day^{-1}) and Ekman transport vectors over the Mediterranean Sea during 5-10 September 2023. Ekman pumping is shown as shaded contours, red (positive) indicating upwelling and blue (negative) indicating downwelling, and white representing near-zero values. Black arrows denote Ekman transport vectors. The track of Storm Daniel is overlaid in black, with red markers highlighting the cyclone's position on each corresponding day. The yellow star indicates the location of maximum cyclone intensity, while the red star marks the warm core eddy location. Coastlines are shown in black.

7. Line 410-412: It is confusing without mentioning the dates used here. I suggest that the authors must mention the dates. Figure 4 is not clear to me; the caption does not show what the variables are in panels a-g in terms of physical and biogeochemical. Also, if these variables a-g are computed as a difference of two days before and after, then how are they represented on dates in the x-axis? The figure caption is not detailed enough to understand the analysis. The signature of MHW and WCE is not visible in the temperature (4a). It would also be informative if the authors had shown the MLD in all the variables from Fig. 4a-g.

Response: The dates appear to be the same because the profiles were taken along the track of the cyclone. Therefore, the "2 days before" corresponds to the same date as the observed values at that location 2 days before, while "2 days after" represents the values at the same location two days later. Thank you for your suggestion; we have now added the MLD to the figure.

Line 413: It is also not clear to me why the salinity decreases in the top 50 m. Is it related to the increased frehening, possibly?

Response: Yes, the decrease in salinity in the upper 50 m is mainly due to the massive influx of freshwater from heavy rainfall during the cyclone, which reduces the surface salinity. We have now added this to the text as well as 'The salinity also decreases on the surface, which

could be because the massive influx of freshwater from heavy rainfall during the cyclone reduces the surface salinity. (Figure 4b).'

Line 413-418: It is difficult to anticipate. I suggest that the author take the difference between 2 days after and 2 days before, and plot the anomalies of the variables from 2 days before the genesis to 2 days after the landfall, which will be more informative.

Response: Thank you for this insightful suggestion. We agree that analyzing anomalies relative to pre- and post-storm conditions can provide a clearer representation of cyclone-induced changes. However, directly taking the difference from absolute values between the selected periods or computing anomalies first and then differencing yields equivalent results. The approach adopted in our study effectively captures these variations and improves the interpretation of the biological response, while clearly highlighting cyclone-induced variability.

Line 421: "DCM." I strongly suggest that the authors avoid using jargon and acronyms; e.g., DCM is a term they use without explaining it. This manuscript uses excessive jargon and acronyms, making it difficult to read and understand. Hence, I strongly recommend that the authors address this to improve readability. This should also be followed in the figure panel titles and figure captions.

Response: Thank you for pointing this out. Here, DCM refers to the Deep Chlorophyll Maximum, and we apologize for any confusion caused. We have mostly used well-known abbreviations such as OHC, WCE, CCE, and DCM. Reviewing the manuscript again, we decided to skip the MR (Mediterranean Region) abbreviation, which is less known. ,

Line 428-430: It is not clear to me what the authors want to convey. It would be informative if the Brunt-Vaisala frequency were shown here, or at least supported by a reference citation.
Response: Thank you for your suggestion. We have revised the text to describe the role of cyclone-induced subsurface mixing better. The updated text clarifies that the observed subsurface structure reflects weaker but still active mixing below the mixed layer, which becomes more relevant during storm conditions.

Line 432-442: Adding MLD to the plot (b-g) will provide the necessary understanding, as well as the change in MLD for h-k.
Response: Thank you for the suggestion. We have added the MLD in the figure for better representation.

Figure 7: The schematic shown here is confusing, and it is difficult to draw a conclusion from the schematic, e.g. drop vs sudden drop, etc. Also, the author must avoid using acronyms and jargon. I guess the WS in the schematic is wind speed. I strongly encourage the authors to remove all jargon and acronyms to improve readability for the broad scientific community.

Response: Thank you! We have improved the Figure as well as the jargon as much as possible to improve the readability.