

Interactive comment on “Seasonality of intermediate waters hydrography west of the Iberian Peninsula from a 8-yr semiannual timeseries of an oceanographic section” by E. Prieto et al.

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Anonymous Referee #2

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Firstly, we would like to thank the valuable and constructive comments provided by two anonymous referees. We agree with their views and we feel that their concerns can be addressed and clarified in a reviewed version as we explain in the discussion response. Besides suggestions about the contents, both reviewers have detected some technical

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corrections and typos that will be corrected in a following version. Reviewer 2 (R2) requests a deepening of the discussion on the comparison between the presented results and those previously published:

“There should be a deepening of the discussion (maybe in Section 4) on the comparison between the presented results and the previously published (observational and modeling) work.”

His/her request is very similar to R1 petition of making the discussion section more quantitative by means of a more detailed comparison against reviewed literature. We have prepared a new figure to show an overall view of hydrographical seasonality found in other regions of the eastern North Atlantic (see response to Referee #1). We feel this figure and further reworking of the section would fulfill the requests from both reviewers.

R2 also provided some specific comments:

P. 3397, L. 4: “There should be some caution in generalizing the merging of the two MW veins into a “single one with the core at 1000 m”. This might happen with the MW flowing northwards but not with the other branches going west and south. But even in the northward branch, this happens at latitudes beyond 43°N.

The reviewer is right. We tried to keep this introductory section short and the paragraph regarding MW is confusing. We will rewrite the whole paragraph.

P. 3402: Before the discussion of Fig. 4 and Table 3 and subsequent ones, it would help the reader reminding, in a more systematic way, what negative (or positive) signal means in terms of summer versus winter conditions.

We agree with the reviewer. We will include at P.3402,L.2. a explicit sentence as follows: “Note that the anomalies are representing the summer minus winter condition, i.e., positive anomalies (red shades) indicate warmer, saltier or denser water along isobars or deeper isoneutrals during summertime.”

P. 3404, L. 3 and L. 6: By looking at Fig. 5, the maximum values for the cool-

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ing/freshening or warming/salting seem higher than those quoted in the text and in Table 3.

The reviewer is right. Figure 5 provides a continuous profile of seasonal amplitudes while Table 3 extracts the values at the pressure levels of key isopycnals. The peak values at the outer regions are up to 0.5°C and 0.10 in salinity at around 1400 dbar. We will clarify this point and correct the paragraph. The peak values quoted at L.6 for the slope region (0.3°C and 0.05) occur near isopycnal 27.9 and are actually 0.31°C and 0.062. These will also be corrected.

P. 3405, L. 24-25: Clarify the sentence “. . .estimated with respect. . .20%”.

We will review the paragraph. We wanted to mean that values of the estimated amplitude of seasonality represent about a 20% of maximum variations (excursions) along the whole timeseries, interannual variability included.

P. 3426, Fig. 4: We have revised the colomap in figures to make them clearer (see Fig.1)

[Fig.1 here]

Fig. 1. Revised version of Fig.4 with enhanced colors.

Interactive comment on Ocean Sci. Discuss., 9, 3393, 2012.

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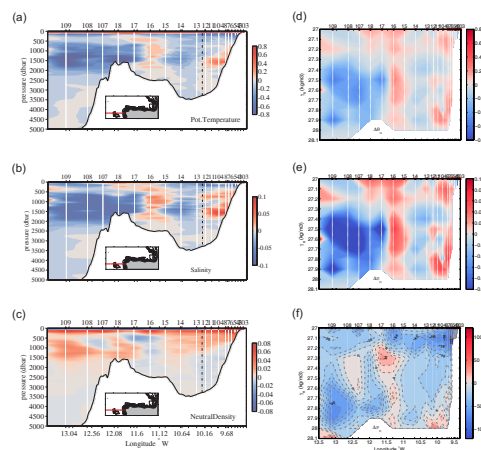


Fig. 1. Revised version of Fig.4 with enhanced colors.

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