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Extreme Flood Impact on Estuarine and Coastal Biogeochemistry: the 2013 Elbe Flood  
Yoana G. Voynova, Holger Brix, Wilhelm Petersen, Sieglinde Weigelt-Krenz, and Mirco Scharfe

Dear Dr Voynova and co-authors,

Thank you for sending your revised manuscript version.

It is really unfortunate that you haven't kept track of the changes you have made to your text, and the task of comparing both previous and present versions is quite difficult. I strongly suggest you in the future to keep track of your manuscript versions in order to highlight the changes you might need to do.

Please refer to the attached comments, before the final decision on your manuscript.

Best wishes

Leticia Cotrim da Cunha

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a) I have a question concerning the HPA Pile station, and the pH values (and other parameters depicted in Figure 5.

Your figure caption says:

*“Fig. 5: Temperature, salinity, DO (% saturation), pH and chlorophyll ( $\mu\text{g L}^{-1}$ ) measured at Cuxhaven and HPA Pile in the Elbe Estuary, for 2012 (left panels) and 2013 (right panels). The colors represent the data identified for each parameter, and at each station, at the times of salinity maxima (Cmax at Cuxhaven, blue; **Hmax at HPA Pile, orange**), and salinity minima (Cmin at Cuxhaven, black; **Hmin at HPA Pile, red**). As a reference, the Elbe River discharge (originally measured in  $\text{m}^3 \text{s}^{-1}$ ) at Neu Darchau station (Fig. 1), was scaled by dividing it by 100 and was included in the temperature plots.”*

I am really confused on the colour legend (for each panel – is it the same?), and especially for the panel showing pH. You said in the reply document that pH data from HPA Pile Station had been removed from figures 3 (this is fine) and 5, but I see an orange line in the pH panel here. Could you please revise this figure, and re-write the figure caption, so that you avoid any misunderstanding?

b) Now concerning Figures 10, 11, 12:

Fig. 10 caption says:

*“Fig. 10: Maps of interpolated (Kriging method of interpolation) salinity, nitrate + nitrite ( $\text{NO}_3 + \text{NO}_2$  ( $\mu\text{M}$ )), and silicate ( $\text{Si}$  ( $\mu\text{M}$ )) for the month of March. The left panels show average parameter distributions, based on 7 years of data (2008-2015, excluding 2013) from AWI stations (Table 1); the right panels show interpolated parameters from 2013, measured at AWI, BSH, FerryBox and HPA stations (Table 1 and 4), were sampled between 15 and 27 March, 2013.”*

I'd suggest you to re-write the explanation about the right-hand panels. For instance: the right panels show interpolated parameters from March 15<sup>th</sup> to 27<sup>th</sup>, 2013, measured at AWI, BSH, FerryBox and HPA Stations (Tables 1 and 4). The same applies to figures 11 and 12.

c) Figure 14 caption says:

“Fig. 14: Dissolved oxygen (% saturation) in surface and bottom waters measured in August and September, **2013meteorologicalmeteoro.** The surface and bottom dissolved oxygen were measured at available discrete stations from AWI and BSH stations, along with FerryBox (M/V Funny Girl) and Deutsche Bucht MARNET station. The dates of coverage are listed in Table 4.”

Maybe you forgot a bit of text in the caption (marked in bold, italic, underlined)?