

Interactive comment on “Summer upwelling at the Boknis Eck time series station (1982 to 2012) – a combined glider and wind data analysis” by J. Karstensen et al.

Anonymous Referee #3

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Comment on "Summer upwelling at Boknis Eck time series station (1982 to 2012) – a combined glider and wind data analysis" by J. Karstensen, T. Liblik, J. Fischer, K. Bumke, and G. Krahnmann

After reading the ms I have to confess that I am not able to identify the sense of the paper. The authors play with data, but they neither posed a scientific question nor any hypotheses. So the goal of the paper remains unclear.

The fact that regional upwelling occurs in the Baltic Sea is well known. I also cannot identify any new aspect concerning the theory of upwelling. There is no progress in improved understanding of upwelling compared to the classical papers of Yoshida and

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Mao (1957, J Mar. Res. 16, 40-53) and Yoshida (1967, Jpn. J. Geophys. 4, 1-75). It is also not clear why the authors combine high resolution data for very short periods with monthly mean monitoring data.

The aspect of diapycnal mixing is rather confusing. On P 2767 L23-24 I read the statement “we were interested if diapycnal was associated with upwelling” followed four lines later by the statement “we ignore any effect diapycnal mixing may have”. And it ends with the statement “diapycnal mixing is assumed to be small. (P2772 L23-24).

Furthermore I cannot understand how the authors conclude that Kelvin waves do not play a significant role?

I cannot identify any new aspect which merits publication. Therefore, I have to recommend the editor to reject the paper.

Interactive comment on Biogeosciences Discuss., 11, 2759, 2014.

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