

## ***Interactive comment on “N/P ratio of nutrient uptake in the Baltic Sea” by Z. Wan et al.***

### **Anonymous Referee #2**

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Q1: You simulated only a couple of years - do you plan a simulation with a variable N/P-ratio in the future?

Q2: I'm not so happy about this simplification, especially because I do not see, why it was necessary. Furthermore it made your oxygen-values worse. To include the remineralization is not so expensive - I hope in further studies you will do it better. Unfortunately you have not answered the second part of this point (why have the other parameters in table 1 been changed?).

Q3: If ammonium at the open boundaries is ignored, delete it from the text (p. 1238, l. 16) or be honest and say that it has been set to zero.

Q4: I'm sorry for not making clear, what I have not understood. I will try again. In your calculation on p. 1244 you allocated the atmospheric deposition over the upper 20m. All I want to know, is why have you chosen the upper layer with 20m? Why not 15m

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oder 25m? Is the mean mixing depth between february and june 20m? Here a short statement in the text seems necessary to me.

I draw back questions 5 to 7.

So with making the small changes due to Q2, Q3 and Q4 I'm happy with the content of the article. Unfortunately still some spelling mistakes are present (p. 1244, l. 21: "First, the [...] instead of "First, he [...]", p. 1258 "Neumann" instead of "Nuemann", ...)

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Interactive comment on Ocean Sci. Discuss., 8, 1233, 2011.