

Interactive comment on “NW Adriatic Sea variability in relation to chlorophyll-a dynamics in the last 20 years (1986–2005)” by L. Tedesco et al.

Anonymous Referee #2

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The manuscript deals with long-term changes in the hydrological and biological parameters (chlorophyll-a) in the Adriatic Sea. The topic is very important at present times when human alterations and eutrophication changes aquatic ecosystems. The ms presents data from two sampling stations with varying nutrient inputs in order to compare those areas and relate chlorophyll-a dynamics to hydrological and chemical parameters. Data presented and the related discussion are however very regional, which makes the ms interesting only for a restricted scientific audience. However, I think the authors could search for similar long-term data analyses from other sea areas, compare/relate their results to wider changes in aquatic ecosystems worldwide and thus increase the value of this data and ms.

Detailed comments: 1. Figure 1 map should be broader, including a part of the south-

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ern Europe. As it is now, it is very difficult to know where the sampling stations are situated. 2. On pages 655 and 656: It is not a proper way to perform two different statistical analyses (Cox-Stuart test and the Kendall test, Sign test and the Wilcoxon Matched Pairs test) for the same purpose and afterwards decide which are used. It should be done beforehand according to the assumptions of the tests. 3. It would be very informative to present all the measured variables in time series plots as chlorophyll-a is presented in Fig 4. Now the figures (5, 6, 7) present mainly averages of all years although the aim of the ms was to study long term changes. 4. Table 5 could be deleted, and the performed transformations inserted into the text (mat&met). 5. Results-section is very long. It could be shortened by reporting only the main findings in the text, statistical tests in the tables (as they are) and the rest could be seen in the figures (if they would present data for all years not only the monthly averages). 6. Don't repeat results in the discussion. 7. On page 665: A reference/references is/are missing after 'Ézooplankton grazing, whose annual cycle is usually out of phase with that of phytoplankton (ref),É' 8. The discussion is also very long and partly missing a 'red line', i.e. it is hard to follow. It should be condensed. 9. Usually 'Conclusions' is a short paragraph where the authors summarize the main findings and the larger conclusions what can be drawn from the presented results. I suggest similar concluding paragraph also for this ms. For example the authors could go back to introduction and present short answers to the well formulated main objectives (page 654, 655) i, ii, iii. 10. On page 667: The authors shortly mention the growth limitation of phytoplankton phosphorus being traditionally the main limiting factor. Their opposite finding is very interesting and should be discussed further. These results could also be compared to other areas.

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