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Biogeosciences Discussions

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 #1

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I find this article not without a certain value, but as it is now, not very interesting. I have impression that authors have done only half of the complete job. The paper has some inconsistency in itself. Although the data are compared as a long-term series of monthly data, through the figures all the analyses are displayed as annual courses. Why they didn't put long-term series of all the monthly data. It is focused on the water column, but explanations of what is going in the water cannot be done without analysing together with their data the long-term series of the Po runoff and at least an appropriate climate indicator like NAO.

Although on most of the questions I replied with yes, this is because it is to some level truth, but is not very precise. Some questions cover few different items to be answered with just yes or no. I preferred to expand the answer sometimes.

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Interactive Discussion
Discussion Paper

EGU

1) Does the paper address relevant scientific questions within the scope of BG? Yes

The scientific question about the difference between the two stations in the north Adriatic could have been answered much better than only with a statistical analysis of the marine parameters, in spite of the fact that methods are correct and discussion is good. The data set is fine but not good to answer any question except just statistical facts mainly about seasonal variability. The large variability in the data is not elaborated in the long-term context. The parameters should have been studied together with the climatic frame of the studied period, especially with the air temperature, wind data, type of the weather, SLP, climatic indices, precipitation, etc. Studying only marine parameters without atmospheric influences one cannot give any answer why changes are occurring. Another serious shortage of the data set is the absence of the analysis in relation to the Po river inflow. They have put a figure of the Po variability, which shows very high seasonal variability of discharge in some months. This points to necessity of further analysis of long-term series of the Po data in relation to other variables.

2) Does the paper present novel concepts, ideas, tools, or data? No

It is not very new to make statistical analysis, neither the data are not new, although it is possible that some of these data, or so complete data set has not been published before.

3) Are substantial conclusions reached? No

Although the discussion is written well, it is as good as the facts are good, but nothing really substantial.

4) Are the scientific methods and assumptions valid and clearly outlined? Yes

The methods are correct and clear, but it is expected in multidisciplinary studies that authors go further from statistics. For example, the anomalies could have been studied or other derived values and related to atmospheric factors and Po river discharge.

5) Are the results sufficient to support the interpretations and conclusions? Yes

BGD

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Interactive Comment

Yes, but nothing really new or very interesting except a statement about oligotrophy of the Northern Adriatic in some parts of the season. This should be one reason more to check if different climate regimes, that happened during this period, have influenced ecosystem on these stations. The data the authors have used can be the basis for calculation of the trophycal index so called TRIX and I recommend them to calculate it and see if there is a difference between the stations and between the periods. This should fit well to their discussion.

6) Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)? Yes

7) Do the authors give proper credit to related work and clearly indicate their own new/original contribution? Yes

8) Does the title clearly reflect the contents of the paper? Yes

The title may be acceptable but I would prefer it shorter: “NW Adriatic Sea biogeochemical variability in the last 20 years (1986-2005) “

9) Does the abstract provide a concise and complete summary? Yes 10) Is the overall presentation well structured and clear? Yes 11) Is the language fluent and precise? Yes 12) Are mathematical formulae, symbols, abbreviations, and units correctly defined and used? Yes 13) Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated? Yes 14) Are the number and quality of references appropriate? Yes 15) Is the amount and quality of supplementary material appropriate? No

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Interactive comment on Biogeosciences Discuss., 4, 651, 2007.