

Interactive comment on “The Mediterranean Sea system: a review and an introduction to the special issue” by T. Tanhua et al.

T. Tanhua et al.

ttanhua@geomar.de

Received and published: 8 June 2013

We thank the reviewer for the suggestions on how to improve upon the manuscript. We answer the points raised by the reviewer below; the comments from the reviewer first.

===== 1) Introductory papers to thematic issues, often based on observational or experimental efforts, provide the rationale for the effort, comparing which were the open issues before the effort and which were approached/resolved after the effort. There is no synthetic presentation to the contributions of the special issue and the cruises, whose data are apparently at the basis of the analysis, are described in their intrinsic scope, very often different from the scope of the special issue. This does not make too much sense to me, even though I can appreciate the honesty of the authors to fully acknowledge the effort of other colleagues. If observations in a specific

C290

cruise were very relevant from question A, but absolutely irrelevant for question B, on which the issue is focused, I believe that mentioning question A will only distract the reader and does not provide any useful contribution. An introductory paper is different from a cruise report. I would then suggest to summarize in one paragraph the commendable efforts made by the authors and the participants to the cruises to extract from three cruises, very wide in scopes, the information to address questions a, b, c, etc.

Our Reply: We have added text to the section describing the open questions that we hope will be elucidated by the contributions to this special issue, see point 3 below. We have significantly shortened the description of the three cruises and the important information is now in a concise section. We fully agree that this is not a cruise report, and that a too detailed description of these three cruises distracts from the main message of the paper.

===== 2) The text providing the “..information on the Mediterranean oceanographic situation..” is too long considering the fact that repeats what has been discusses in tens of reviews on Mediterranean dynamics. Even a short review should provide some insight deriving from the point of view of the authors. In the paper the authors implicitly postpone their views and the new results to the other contributions in the issue. Then the part on the status-quo can be summarized in a compact list of statements, which serve as an introduction to the new results.

Our Reply: We have written a short but comprehensive review of the Mediterranean Sea including aspects of the hydrological cycle, the circulation including deep and shallow overturning circulation, and the biogeochemistry of oxygen and nutrients. I have not yet read a review that summarizes all these in a review like this before and we believe that such a review is an important component of a special issue that deals with a large variety of subjects, i.e. the biological, chemical and physical oceanography of the Mediterranean Sea. Furthermore, this paper present sections covering significant part of the Mediterranean Sea; these sections are discussed in a general sense throughout

C291

the review. Sections covering the Mediterranean Sea from the eastern boundary to the Strait of Gibraltar are seldom published in the literature (if ever), and we think that those are an important and significant contribution to the descriptive oceanography of the Mediterranean Sea, particularly for readers not very familiar with this region. One can argue that we should bring in new insights to the review. However, this is difficult to do without taking away the substance for the original research articles in the special issue. We think that we found a balance between summarizing previous knowledge (i.e. a review), providing background information the readers of the special issue, and presenting the large scale sections of key oceanographic and hydrochemical parameters.

===== 3) Since the authors do not anticipate, besides a couple of charts, what will be the key contributions of the issues, it is not easy to suggest a different way to restructure the paper. My suggestion is to go back to the main questions raised in the paper, e.g., deep water formation, shallow overturning, oxygen turnover and nutrient ratios, etc. to say which they believe are the most important unsolved questions (better if they are bullets) and anticipate on which of those the special issue is providing a new contribution and with which paper(s). (See point 1 above)

Our Reply: The reviewer touch on a subject that we discussing internally before the initial submission; are we going to include a short introduction to the papers in the special issue and comment on their objectives and put into context of the special issue? We initially decided not to do this; primarily since we at that time had little knowledge of the papers to be submitted to the special issue. As a response to the reviewers comment we have now added a section with short presentations of papers submitted, or being close to submitted, to the special issue. In the end, it is possible that there will be other papers submitted; or submitted papers being rejected, so that this listing of papers is bound to be incomplete and/or wrong. The alternative would be to wait with the introduction paper until all other papers are published, which we think is a less attractive option since the sections, and the review, presented here will be useful for

C292

other contributions to refer to.

Interactive comment on Ocean Sci. Discuss., 10, 581, 2013.

C293