Interactive comment on “Short-scale temporal variability of physical, biological and biogeochemical processes in the NW Mediterranean Sea: an introduction” by V. Andersen et al.

Anonymous Referee #3

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Review. “Short-scale temporal variability of physical, biological and biogeochemical processes in the NW Mediterranean Sea: an introduction” by Andersen et al.

General comments This paper is the introductory contribution to the special section of the Dynaproc 2 cruise performed in the framework of the PROOF-PECHE project. The main goal of the PECHE project was to examine the natural variability of the structure and the dynamics of the pelagic ecosystems at small time scales and in response to transient events. In this paper the main and specific foci of the Dynaproc 2 cruise are reminded and resituated in the context of each type of biological pumps previously de-
fined by Longhurst in its seminal paper of 1991. This is undoubtedly the strong point of the paper because this choice of presentation highlights the high scientific interest of the Dynaproc 2 cruise. Afterwards, the overview of the most crucial results obtained from the campaign is presented. It can be noticed however that the way the Authors summarize the results is slightly like a 'shopping list'. The most problematic point of the paper lies in the physical characterization of the Time Series Station in the 'Cruise summary' section. Author asserts several conclusions on the physical context of the cruise without showing any figures or even quoting a published paper. If there is no paper available on the physical context this theme should be worth developing in the manuscript. Despite these remarks I surely recommend the publication of this paper that is fully in the scope of BG.

Specific comments

p5234, line 14: the term 'data set' is in duplicate. p5235, lines 9/10: 'play' instead of 'pay'. A reference should be worth adding at the end of this sentence. p5239, line 12: 'm-2' instead of 'm2'. , line 20: is there a reference existing on the chlorophyll values of the 1995 DYNAPROC cruise? If yes, please add it. p5240, line 9: 'cell l-1' instead of 'l-1'. , line 23: 'bacteriovores' instead of 'bacteriovores'. p5243, lines 24/25: the following sentence 'which viewed from a distance, for example satellite images, appears invariant' has to be moderated because confusing. This assertion also counteracts a sentence written in the background section (p 5235, lines 9/10). The beginning of conclusion has to be rewritten.

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