

## ***Interactive comment on “A fishery observing system for the collection of fishery and oceanographic data” by P. Falco et al.***

**P. Falco et al.**

Received and published: 4 October 2006

Response to referee comments regarding the paper: “A fishery observing system for the collection of fishery and oceanographic data” by P. Falco et al. Referee : I. Palomera (Referee) isabel@icm.csic.es

The authors revised the paper accordingly to the general and specific referee comments and text and figure then have been modified. The referee suggested to modify the paper in 1. Form and structure of the sections; 2. Content of methodology, results and discussion, following specific comments she indicated.

Next every single referee comment will be reported followed by authors answer.

Specific comments Referee: Title: I suggest erasing the first ‘fishery’ word- ‘An observing system for the collection of fishery and oceanographic data’. Authors: The title was

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modified accordingly.

Comments relative to point 1. Referee: In general terms, the paper is hard to follow because there is a lot of information that is not well structured, it is repeated in some cases or it is not correctly located in the corresponding sections. Authors : This work should be an general overview of the activity and of the results obtained during three year of activity which spread on different field : technology, data collection, software development, data analysis. Many things was not reported in the paper but all the issues we considered important to point out was included in the paper. For these reason probably there are much information which are not easily to explain following an unique way. Anyway following referee's suggestion, we tried to avoid repetition and mislocation. Referee: For instance: - The order of figures doesn't fit with the order of appearance in the text. Authors : The order of figure was re-sorted and one more figure was added.

Referee - Some methodological parts appear in results: e.g. page 844, lines 4 and 5: If Chioggia vessel is excluded must be said in methodology. Some results appear in methodology, e.g. page 840, line 5 and 6 that correspond to a result. Authors: The text part where the exclusion of Chioggia data were discussed was moved in the result as well as the results reported on lines 5 and 6 of page 840 was deleted.

Referee - Data related with vessels, type of gear and seasonal activity is extremely extends and confuse. If the analysis ends only using data from Volante fleet, the explanations related with lampara data are not so important. I would suggest adding the temporal information of fishing activity in Table 1. Authors: Considering that a non-expert in fishery could read this paper (and Ocean Science is not a specialised fishery journal), the authors thought to include some details about the Adriatic small pelagic fishery. In Section two general information were reported regarding the two main fishing techniques including the period of the year when they are carried out. Information about lampara were included because data from these vessels were obtained and will be used next in order to have data in summer too when pelagic trawlers stop activi-

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ties. Some indications the future utilisation of lampara data have been included in the revised discussion.

Referee - Figure 1 is very difficult to interpret mainly due to colours overlap. Moreover, 'white' tracks are not possible to be seen and isobaths are not white, as indicate in the text (page 843, line 26). I suggest perhaps dividing this figure in two, or make a zoom of some part of the map in order to show with more definition the tracks of some of the vessels. Authors: Figure caption of figure 1 has been corrected in order to make the right color in the caption referring to the right tracks in the figure. The isobaths are know of the right colour. Furthermore a new figure was included in order to give a more clear idea of the tracks of the pelagic trawlers. The original map with all the tracks was not changed because we think that it gives the idea of the area covered by fishing vessels and specially where the fishing grounds of different vessels overlap. This is a basic condition to standardise the CPUE.

Comments relative to point 2. Referee - In paragraph two of page 840, authors said that data from MFSTEP model are surface temperature and these data are used to compare results from In-situ (trawl) data that come from depth. Why do not use data from ADRICOSM model that are also from depth? Authors: We not use temperature data at depth derived from ADRICOSM models because we gathered temperature data at depth using the TPs thus we used these data in the analysis. Also, ADRICOSM models are part of MFSTEP models. This part of the text was changed in order to make it more clear.

Referee:- Calibration of TPs with CTD was made in a special experiment or during fishing? This should be clarified. Authors: The answer is yes and it was added in the text.

Referee: - On Data set (3.1.3) line 17, authors said that Giulianova vessel uses lampara from spring to late autumn; that means that they use volante only in winter. It seems to me that some contradictions exist with the paragraph in results about longest

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and continuous time series (Page 845, line 27-28) Authors: There is no contradiction because the volante of Giulianova, after Rimini and Ancona, has actually the highest number of hauls with data. The actual period during which the vessel of Giulianova works as volante has been indicated in the text.

Referee: - Paragraph on satellite data (page 847) do not seem to be necessary. Authors: Some effort was done to try to use satellite data and we think that it have to be mentioned. Unfortunately poor results was obtained from the analysis and then few information can be derived but we still think that a brief paragraph can be inserted in the text.

Referee:- Discussion is a compendium of introduction, methodology and results. I suggest to focus it on advantages and disadvantages of FOS, identified problems and novelties respect other FOS applications (which have not been mention neither; it would be interesting to cite other works were similar FOS have been implemented). It would be interesting to mention as well future developments of the methodology and the need to continue analysing results (taking into account seasonal -e.g. reproductive period- and long time differences). Authors: we accepted the suggestions of the referee and then we modified the discussion following the referee indications.

Referee:- Related with comments in first paragraph of the Discussion, I think that is important to take into account that distribution and abundance of small pelagic can be driven by different environmental factors, not acting in the same moment. Abundance is related with recruitment, so there is a time lack with factors affecting it, as it is explained in Lloret et al. 2004. In this work the authors show how wind and river runoff was related with larval survival a year before and not with current abundance of adults. What I mean is that this methodology is adequate to analyse effects of environment on distribution of adults, and to compare differences on distribution of abundance by region in the same moment and the influence of environment on this. Authors: the reference to Lloret et al. 2004 in the first paragraph of the discussion was cancelled because, as the referee suggested, in that work the wind was used to study the effect

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on recruitment which is connected to adult abundance on time scale longer than we are actually interested in this work. On the other hand this aspect was briefly pointed out in the previous and new discussion. Consideration regarding river run off, wind and anchovy recruitment in the Adriatic Sea has been recently published in the paper Santojanni et al. on the review Climate Research

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Interactive comment on Ocean Sci. Discuss., 3, 827, 2006.

**OSD**

3, S532–S536, 2006

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