

Interactive comment on “The RADMED monitoring program: towards an ecosystem approach” by J. L. López-Jurado et al.

Anonymous Referee #2

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General comments:

The paper The RADMED monitoring program: towards an ecosystem approach by J. L. López-Jurado et al. does not address a scientific question within the scope of OS, since it describes the Spanish RADMED monitoring program. However this is perfectly coherent with the aim to be included in the special issue dedicated to the “Operational oceanography in Europe 2014 in support of blue and green growth”, hardly a scientific topic too. The paper details the monitoring program, the sections performed, the parameters sampled and the frequency, up to the database where the data are made available. If this paper was meant in support to other papers in this special issue, it should be mentioned. In any case it will be useful to the community looking for time series in the Mediterranean Spanish coastal areas, useful too in the event of

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a Mediterranean-wide coordination effort. This paper can be published provided the comments are addressed (minor importance for most of them) and the text check for English and typos.

Specific comments:

Consistency of terms and names needs to be checked throughout the text (e.g. Western Mediterranean, Western Mediterranean sea, western Mediterranean sub-basin, Eastern basin...) . When an acronym is given it has to be used throughout the text (e.g. GES)

P648 I16: lack of coordination: do you mean lack of (coordinated) monitoring at the Mediterranean scale?

P649 I14: the reference (Milot, 1985) is not relevant, as it deals only with the Algerian Current. Use Milot and Taupier-Letage, 2005 DOI 10.1007/b107143 ?

P650 I14: or rather: that implied a different contribution of the water masses?

P650 I19: the reference (CIESM, 2009) for the EMT is hardly relevant

P650 I21: at an interannual scale one cannot speak of “climatic oscillations” but “simple” variability, as stated line 24.

Check that all geographical names (river Ebro...) are located in a figure. (ex: P651 I4: Cape Palos is not reported on Fig.1.), and add the moorings locations.

Section 3.1 p652: If new transects were to be added, or if existing ones were to be longer, it would be better to give them an orientation perpendicular to the local isobaths (instead of the coastline), that is perpendicular to the current: this will enhance the relevance of the geostrophic current computations.

Section 3.2: The authors should detail how they achieve an homogeneous data set, given the different instrument specifications (SBE 911 vs SBE 25 or 19 +: data are binned on how many db, for instance?), 2 types of transmissiometers vs 1 optical back-

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scatter Seapoint, etc... This specific information is missing in section 3.2.3, while it is very important for the use of the database that is made public (a great asset for the community).

The RADMED inventory information would benefit from a task-time chart of the actions listed. Same for the parameters respective availability.

Section 3.2.3: Data management: a flow-chart would be a great help, given the number of acronyms and thus of steps involved.

P654 I4-5: given the references listed in sections 1 and 2, 1 reference here is enough
P654: Why are phytoplankton and bacterioplankton included in the Biochemical sampling section, instead of the Biological sampling one?

Section 3.2.1: The authors should detail the criteria they use to define the cores of the water masses. What is the range of the DCM depths from CTD fluorescence profiles? Has it ever been found deeper than 100m? The sampling does not allow for DCM > 100m (P654 I7-9).

P658: Draw the transect shown in Figure 4 on the Figure 2 Add in the text the duration of one cruise, to provide information about the synopticity of the dataset. Figure 4: where is the evidence of the upwelling? An upwelling is not necessary to have high chlorophyll concentrations here at that time of the year.

P659 I3: What allows to sample an intermittent phenomenon is also -and most of all- the high temporal resolution of the RADMED sections (rather than the spatial resolution).

Section 6 is a repetition of section 5: either merge them or clearly differentiate them. Both sections have to be re-worked: there are other repetitive networks that monitor the Mediterranean (the French MOOSE network that has been cited), some are even Mediterranean-wide (HYDROCHANGES, Med-SVP, ARGO floats, ...). As stated by the authors, the reach of some transects is too short to provide an adequate description

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in some places, and the RADMED “extensive spatial coverage” is extensive only at the Spanish coastal area (though it does not even reach the northernmost part). So I14-15 p661 clearly don't reflect the reality. Moreover, the MSFD framework and indicators will not achieve a good description of the climatic evolution of the Mediterranean, and the lack a coordinated funding from EU will not foster (coordinated) monitoring actions at the Mediterranean scale. If the authors have suggestions for a coordinated network at the Mediterranean scale, this would provide an added-value.

Technical corrections (not exhaustive):

P646 I12: ecosystemS P646 I9: development P646: what is the scientific difference between seas and oceans? P648 I1: ...ARE essential P648 I8: seaS P648 I14: monitoring HAS P648 I16: lack of coordination: do you mean lack of (coordinated) monitoring at the Mediterranean scale? P648 I18: Established P650 I13: tHermohaline P650 I20, I24: SUCH as... (check throughout the text) P650 I21: at an interannual scale one cannot speak of “climatic oscillations” but “simple” variability, as stated line 24. P650 I25: affect biological P650 I28: and therefore the P652 I26 and throughout the text: IS unit for liter is l, not L P654 I1: them, P654 I2: activity, P658 I10: been P658 I12: though (instead of thought; check throughout the text) P660 I25: detectING and complEmenting... Proof-read carefully the end of the text.

Interactive comment on Ocean Sci. Discuss., 12, 645, 2015.