

Interactive comment on “Modelling origin and transport fate of waste materials on the south-eastern Adriatic coast (Croatia)” by M. Tudor and I. Janeković

Anonymous Referee #2

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The evidence of important waste accumulation along the south-eastern coast of Adriatic during the second half of November 2010 is the major justification of this study. The authors analyzed the meteorological and oceanic conditions, from observations and numerical models, to explain this beaching event.

While the subject is very interesting and is a hot topic nowadays, I think that the manuscript needs a deep rewriting and major revisions before being published.

The manuscript does a review on the meteorological conditions, describing the wind regimes, as well as the cyclonic regimes in the Mediterranean area. It seems to me that the main goal of the manuscript is to validate the atmospheric model with observations.

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The correlation between the atmospheric regimes and the Adriatic circulation or the surface litter is not very clearly demonstrated.

Moreover, the manuscript needs to be rewritten, as many typo and grammar errors do not facilitate the understanding. Eventually, the figures need also to be revised. I think that a simple spell checker (latex or word) (or maybe just a re-reading exercise from the authors) should have been run before submission.

Figure 1 does not have any units. Figure 2 has too many informations. The difference between large and small symbols is not striking, and the colors are not needed if not explained in the text. Figure 3 and 5 depicts the atmospheric regime overall the Mediterranean. Is it necessary when focusing on the beaching on the south-eastern coast of the Adriatic? Figure 4. What does "for the period from 06 UTC on 8 and 9 November" mean? Please rephrase Figure 9. the quality of the figure does not allow to recognize any significant patterns. Figure 10 should be the core of the paper (according to the title). It is too small, and has too many informations to be able to analyze it. Moreover the caption is not clear at all. The details of the lagrangian module should be given in section 3.3, since the beaching hypothesis may be crucial when dealing with particle advection.

I think that the authors should rewrite the paper, focusing on the transport fate, computed from the oceanic model (which needs as well a more detailed explanation). Then, the results may be justified looking at the atmospheric model, and the meteorological observations.

Interactive comment on Ocean Sci. Discuss., 11, 2939, 2014.

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