

Interactive comment on “Spatial and temporal variability in coccolithophore abundance and distribution in the NW Iberian coastal upwelling system” by Blanca Ausín et al.

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The subject of this paper is very important and very dear to me and it is a very important contribution to the understanding of the coccolithophore ecology, namely off the West Iberia region. Most recommendations/comments/corrections can be found on the uploaded pdf file (bg-2017-236-manuscript-version1+MC.pdf).

Main concerns are the following: 1. Although authors refer to our paper of the Liths/Spheres model to justify (and well) to keep both data sets separately, the manuscript often refers to coccolithophore abundances based on coccolith abundances and not cell(coccosphere) abundances which may induce the reader (specially

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the biologically driven reader) in error. Thus, this paper should be mainly dealing with coccosphere abundances. Coccolith data should be used to complement and compare to the cell counts (the model L/S cannot be applied because the sampling was performed monthly) and not the other way around as this paper does;

2. The authors do not consider the existence of the species *Gephyrocapsa muellerae*. Possibly this species was integrated into the small *Gephyrocapsa* group but this is not referred. I find this a critical point to accept this paper since it compromises the conclusions based on *gephyrocapsids* and misses important ecological inferences. I attribute this to the fact that coccolith counts were performed with only x1000 magnification. In addition SEM should also be used to complement taxonomic identifications namely with other coccolithophore taxa difficult to identify only by optical microscopy.

Minor concern. The presence of *C. pelagicus* ssp. *pelagicus* as coccoliths may derive from reworking. However it can also be specimens from the lower end of the *C. pelagicus* ssp. *braarudi* morphotype (under current revision). Because the authors don't refer the classification criteria it is difficult to distinguish which might be the case.

Please also note the supplement to this comment:

<https://www.biogeosciences-discuss.net/bg-2017-236/bg-2017-236-RC1-supplement.pdf>

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