

Interactive comment on “Mesozooplankton structure and functioning during the onset of the Kerguelen phytoplankton bloom during the Keops2 survey” by F. Carlotti et al.

Anonymous Referee #2

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General comments: This manuscript combines net tows, biomass estimates and stable isotope measurements to describe trophic structure and functioning of the zooplankton community near Iles de Kerguelen at the beginning of the spring bloom. It provides some useful data that provide a picture of the zooplankton community in that region, which will be helpful to future studies. However, the manuscript is unnecessarily long and complicated and has used 3 tables and 10 figures to tell a fairly straightforward story. You have used bulk isotopic measurements to make inferences about individual taxa and this is not very convincing. For this manuscript to be accepted I believe it should be shortened, with major points made clearer and less speculative. Specific comments: 1. I found the swapping between ZooSCAN results and net tows to be

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quite confusing. It would be helpful if you could add ZooSCAN to the figure captions, as you do in the text. Also, while your species list in Table 1 is very helpful, it would be more useful if you showed actual abundances from your net tows. 2. Your use of T and IS groups is unnecessarily complicated. If sorting your stations into T-groups to match the previous work is important then why mention the IS groups? Also, in Figure 10 there is no reason to link the scatter points with lines. 3. Your net size was 330 um, so it is not appropriate to put too much emphasis on the data represented by the 80-200 and 200-500 um size classes. Even suggesting that these smaller fractions are isotopically different to the larger fractions is pushing the interpretation of your data as you can't be certain that the smaller size fractions are representative of all the particles that were available in the water column. Important small genera such as Oithona will be seriously undersampled by a 330 um net, and even some of the larger copepods will not have been sampled quantitatively. 4. For Figure 6 the pies charts are hard to read at that size. Also your caption stating that 'color labels for the different taxa are similar' is unclear. What do you mean? 5. Your description of the 8 long term stations is very hard to understand (P2386; L9-15). 6. Figure 4c does not seem to be mentioned in the text. 7. The details of the map in Figure 1 are hard to see.

Technical corrections: 1. P2383; L7: add 'the' before Antarctic Circumpolar Current 2. P2384; L4: remove 'in contrast' 3. P2384; L9: remove 'as well' 4. P2384; L16: did not describe 5. P2384; L27: Antarctic 6. P2384; L28: remove 'a' 7. P2385; L1: relatively, change 'of' to 'in' 8. P2385; L21 change 'in' to 'of' 9. P2385; L23: change 'aim' to 'chosen' There are many instances of small changes that need to be made to the text, so it would be useful to have a native English speaker proof-read the MS before resubmission.

Interactive comment on Biogeosciences Discuss., 12, 2381, 2015.

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