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Interactive comment on “Microbial food web dynamics during spring phytoplankton blooms in the naturally iron-fertilized Kerguelen area (Southern Ocean)” by U. Christaki et al.

Anonymous Referee #2

Received and published: 7 October 2014

The manuscript reports on the dynamics of the microbial community in phytoplankton blooms of the iron-fertilized region of the Kerguelen Islands in the Southern Ocean. It provides a very detailed good description of the microbial abundances, bacterial production and respiration and viral lysis and HNF predation, in several blooms which they crossed north-south and east-west.

The study contains extensive information to merit publication in BG. However it additionally includes a combination of the results with those of a previous cruise (KEOPS-1) that allowed the calculation of a budget for the flow of carbon through the microbial food web. This budget provides a very schematic broad picture of the processes at the early and late phase of the bloom and is a good summary of both cruises.

C5713

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Comments

1. Which was the composition of the phytoplankton bloom? I think this information should be included in the ms.

2. I do not think you should use the term Fe-fertilized unless you provide concentrations of Fe, could you think of another term to refer to those areas?

3. Why do you calculate the volumen of each of the size classes of HNF after cell sorting and by epifluorescence microscopy. The cytometer can provide cell size estimations for each individual cells, which might be more accurate than a mean of the population.

P 7004 L3-4. Importance and important repeated in the same sentence

Table 3 legend. L4. Fluorescence

Fig3. Units in the upper left pannels lack the 1 of the 1000.

P7011 Wrong order of references: Zubkov, Zhou

Interactive comment on Biogeosciences Discuss., 11, 6985, 2014.

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