Replies to editor (bold)

1. Although the reviewers did not point it out, I found the authors are assuming that primary production and chlorophyll are the same. Primary production is not estimated but discussed quite a lot – in fact one of the objective of the study was this:

"We thereby evaluate the potential positive and negative effects of ash from the 2015 Calbuco eruption on marine primary production" (Lines 116-117)

and it is concluded: "Strong evidence of a broad-scale 'bottom-up' fertilization effect of ash on primary production was not found locally within Reloncaví Fjord," (lines 735-736)

I would suggest the authors to restrict their discussion to chlorophyll only in the absence of primary production data.

We have checked this throughout and there were two places where we used the term 'primary production' too loosely, now amended as follows:

Line 117 "We thereby evaluate the potential positive and negative effects of ash from the 2015 Calbuco eruption on marine phytoplankton"

Line 741 "Strong evidence of a broad-scale 'bottom-up' fertilization effect of ash on phytoplankton was"

2. How were diatoms enumerated? Should be explained in methods.

We expand the description of this as requested (line 314-). **"During May 2015, weekly field campaigns were undertaken in the Reloncaví Fjord. Phytoplankton samples were collected at 3 depths (1, 5 and 10 m) for taxonomic characterization and abundance determination at 3 stations (A, B and C; Fig. 1) using a 5 L Go-Flo bottle. Samples for cell-counts were stored in clear plastic bottles (300 mL) and preserved in a Lugol iodine solution. From each sample, a 10 mL subsample was placed in a sedimentation chamber and left to settle for 16 hr. The complete chamber bottom was scanned at 200× to enumerate the organisms and the result was expressed as number of phytoplankton cells per L of seawater (Hasle, 1978). Phytoplankton were identified to genus or species level, when possible, and divided into diatoms and dinoflagellates. Samples were analyzed using an Olympus CKX41 inverted phase contrast microscope and the Utermöhl method (Utermöhl, 1958). The phytoplankton community composition was then statistically analyzed in R (RStudio V 1.2.5033) using general linear models in order to find statistically significant differences between dates and group abundances."**

In addition, please edit the following:

Table 1: No. in "No of replicates" should be corrected.

Put caption on the top of the tables (Table 2)

Table 1 "Number of replicates"

Table 2 Re-arranged.