Dear Dr. Hoppema

14 June 2016

Thank you for accepting the manuscript for publication and taking your time for the evaluation of the manuscript text for final modifications. We note the changes we made in the copy of your comments below.

In addition to the requested changes we added a paragraph "Data availability" listing the references to the data used.

The author Damian Grundle is now employed at BIOS in Bermuda and we added for him the BIOS address for his institutional address.

With best wishes Lothar Stramma

Topic Editor Decision: Publish subject to technical corrections (10 Jun 2016) by Dr. Mario Hoppema Comments to the Author: Dear Dr. Stramma and co-authors,

Thank you for the revision and resubmission of your manuscript. It is now accepted for publication in Ocean Science. Please have a look at some few technical issues which are listed below and correct these.

Answer: All comments are taken care of, see below.

P21 L24 "upwelling was modified" I don't quite understand what you mean here. Is it: the characteristics of upwelling were different?

Answer: Thank you, we modified the text as you proposed as 'characteristics of upwelling were different'.

P23 L 19 delete: more (rare is rare)

Answer: 'more' was deleted.

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P24L1 ... of Peru; however, for the EP El Niño ... (substitute second: while) Twice "while" in one sentence is not nice.

Answer: 'while' was removed and the sentence split into two sentences.

P34 L14 Please use SI units for the oxygen concentration, or at least translate the boundary of 0.5 ml l-1 to $xx \mu mol l-1$ (or umol kg-1) and give both.

Answer: SI unit is included.

Table 1 and 2: Please comply with the date format of Ocean Science: 29-31 March 1993; 12-13 February 2009 (or 12-13 Feb); etc.

Answer: Tables 1 and 2 were modified to fit the OS Format.

Figure 4, 5, 6: I am not sure the axis labels will be readable. Please increase the letter size.

Answer: The axis labels were increased in size for the figures 4, 5, and 6 as well as for the supplement Figures S1, S2 and S3.

With best wishes Mario Hoppema