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Interactive comment on “Skill assessment of the PELAGOS global ocean biogeochemistry model over the period 1980–2000” by M. Vichi and S. Masina

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We thank Dr Wang for the information on available data in the equatorial Pacific. The ClimPP data set was prepared by Dr Barber and distributed as supplementary material in [Friedrichs et al. \(2009\)](#). Particularly, as indicated in the description by [Friedrichs et al. \(2009\)](#), the EqPac data are included as they were part of the JGOFS programme ([Barber et al., 1996](#)). PROPPAC data of 1987 are included in the data set while FLUPAC data in 1994 ([Le Borgne et al., 2002](#)) were possibly not included because considered not compliant with the protocol standard (M. Friedrichs, pers. comm.). The ClimPP data set was chosen as reference since it is composed of a set of quality-controlled

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Discussion Paper



data that have been reprocessed following specific standard protocols for comparison with primary production models.

We are aware of the impact studies of ENSO and also mesoscale variability on primary producers in the equatorial Pacific (e.g. [Pennington et al., 2006](#)) as we discussed in [Vichi et al. \(2008\)](#). The focus of this work was on the quantitative assessment of model behavior based on available quality-controlled data sets, therefore we also added a comparison with the observed and simulated variability in this important region. However, as pointed out by other referees' comments, such a study requires a more thorough analysis of the driving processes and not just a brief paragraph. For this reason we removed former Sec. 4.3 on the variability of primary production in the equatorial Pacific. This topic will be the subject of future specific investigations both with a coupled Earth System Model and with additional forced simulations.

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