SUPPLEMENTARY MATERIAL

Henson et al. 'The impact of global warming on seasonality of ocean primary production'

This supplementary document contains further comparisons between observed and modelled primary production (PP) fields.

Comparison of observed and modelled fields of seasonality in PP

Mean seasonal amplitude and peak timing of PP for each model is compared to the satellite-derived values (VGPM; Behrenfeld and Falkowski, 1997). The historical runs of the model for a 20-year period (1985-2005) are used to resolve long-term means. Figure S1 plots the seasonal amplitude of PP and Figure S2 shows the timing of peak PP.

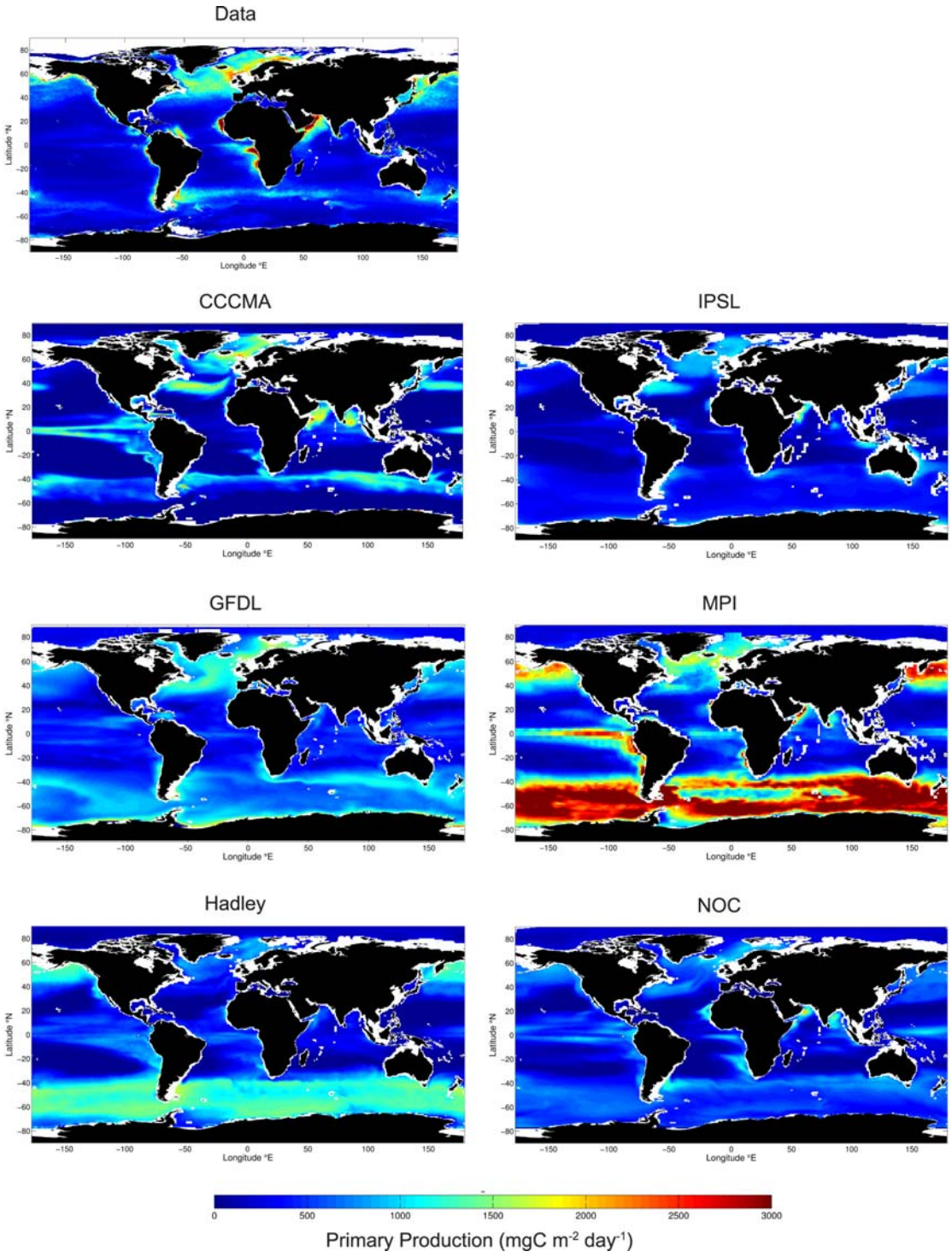

Figure S1: Comparison of satellite data-derived seasonal amplitude of PP (mean of 1998-2005) and the 6 models used in this study (mean of 1985-2005).

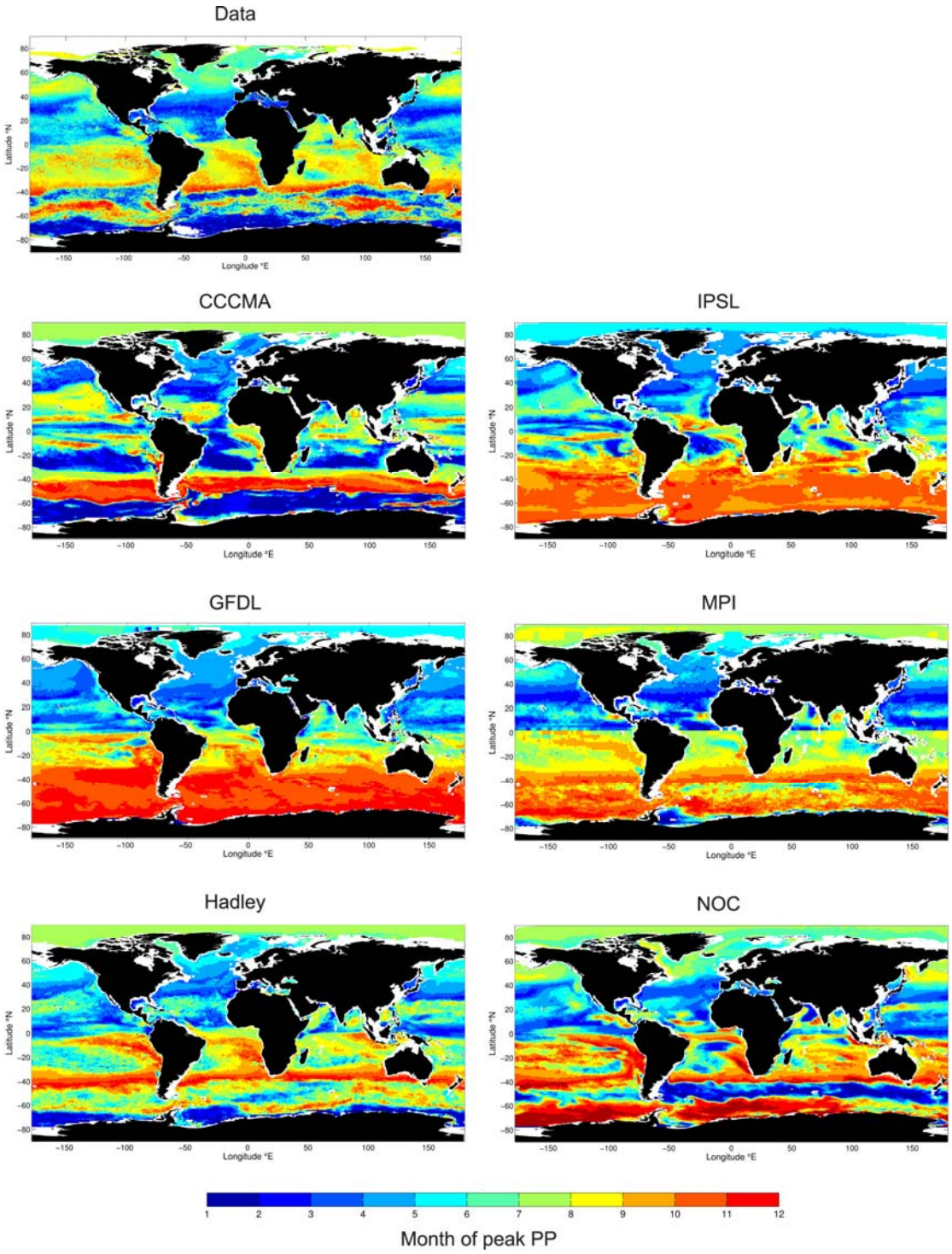

Figure S2: Comparison of satellite data-derived timing of peak PP (mean of 1998-2005) and the 6 models used in this study (mean of 1985-2005).

Taylor diagrams excluding the Southern Ocean

The models typically perform poorly in the Southern Ocean (see Figures S1 and S2). As a complement to the Taylor diagrams for the global model fields shown in Figure

1 of the main text, we here present Taylor diagrams excluding the region south of 50 °S (Figure S3).

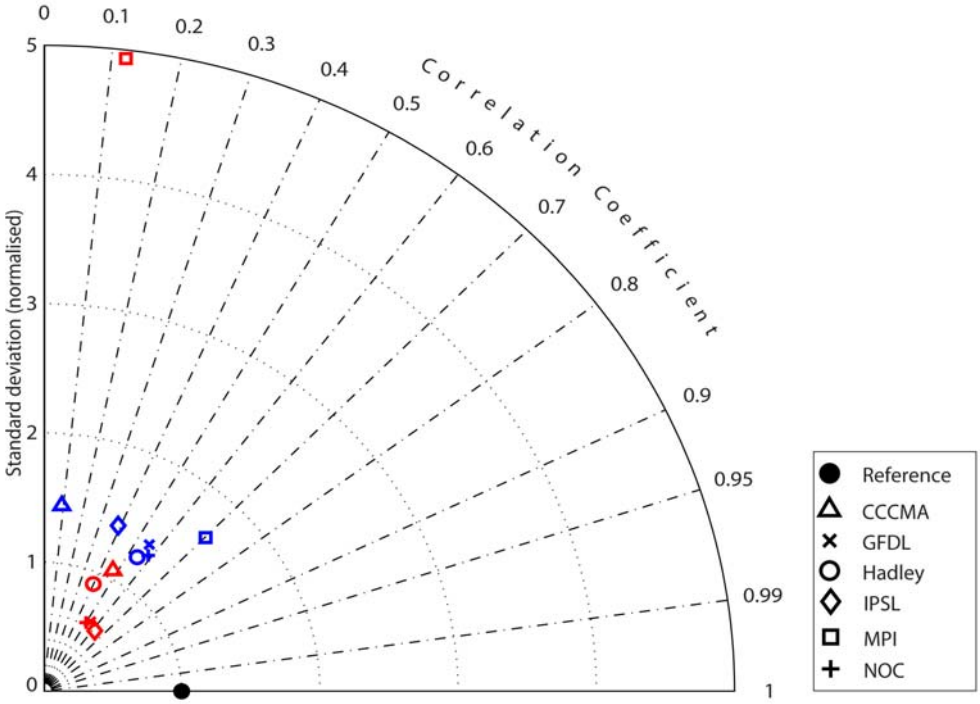

Figure S3: Taylor diagram showing model-data comparison of spatial variability in seasonal amplitude of PP (red) and timing of peak PP (blue) for 6 models, excluding the Southern Ocean south of 50 °S.