



Supplement of

Assessing the tropical Atlantic biogeochemical processes in the Norwegian Earth System Model

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Supplementary Information of Koseki et al.

Here, we would like to have supplementary figures for Koseki et al. This information consists of 5 figures.

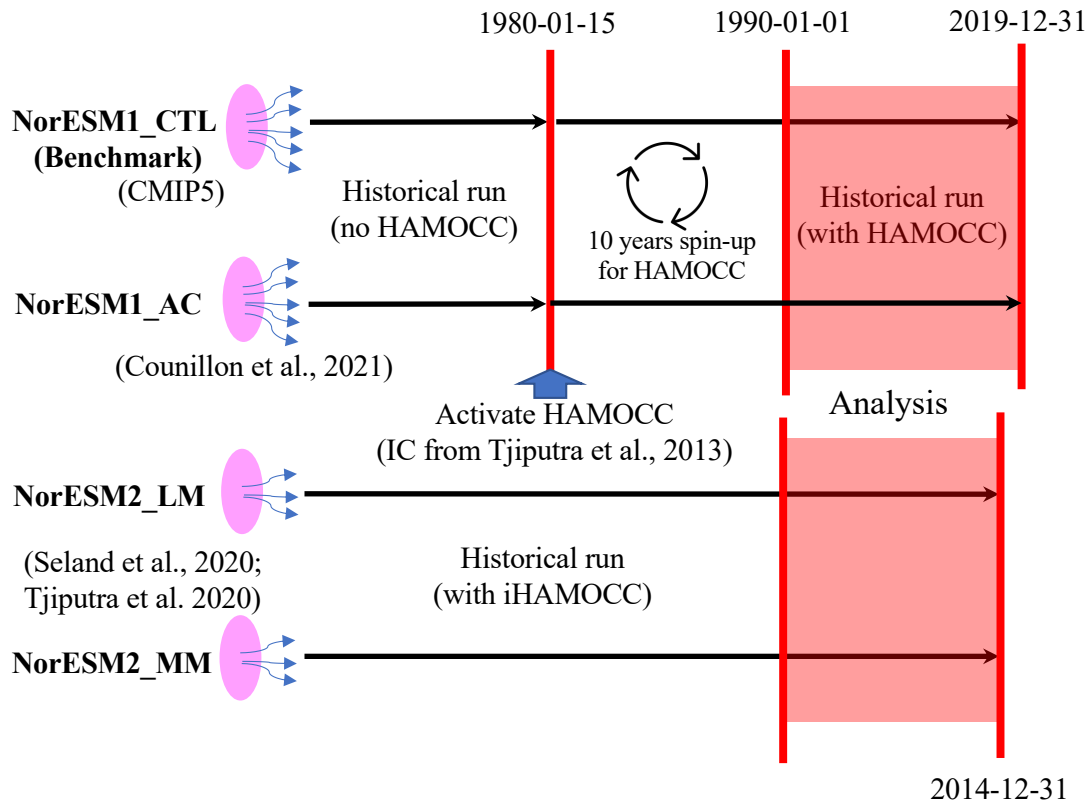


Figure S1. Schematic of experimental designs of NorESMs

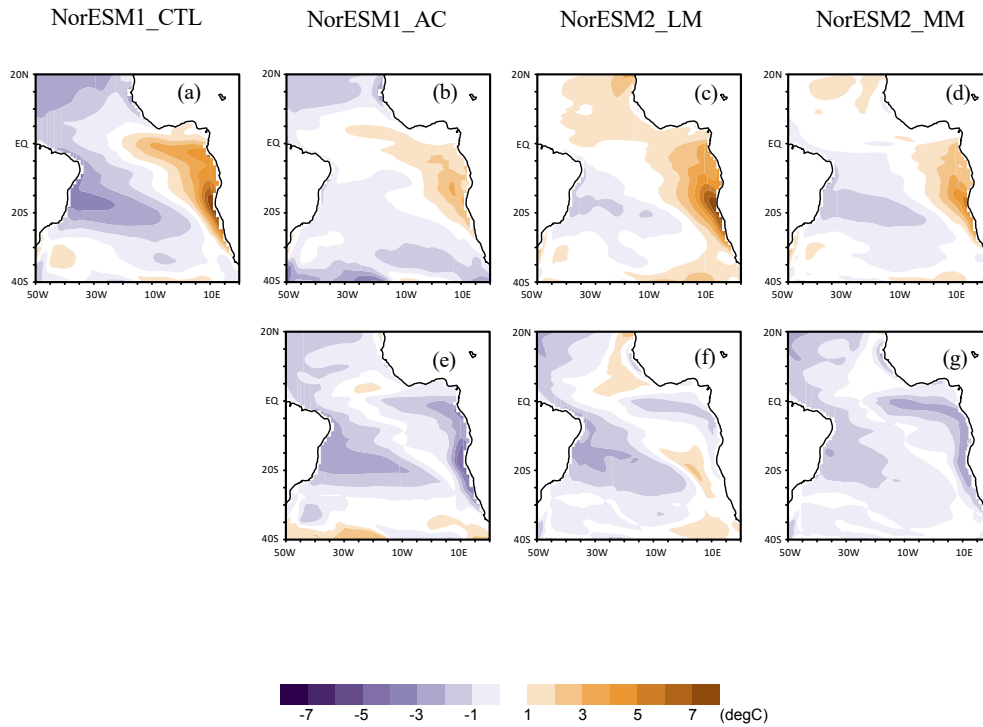


Figure S2
Same as Fig. 1, but for summer (June-July-August) climatology

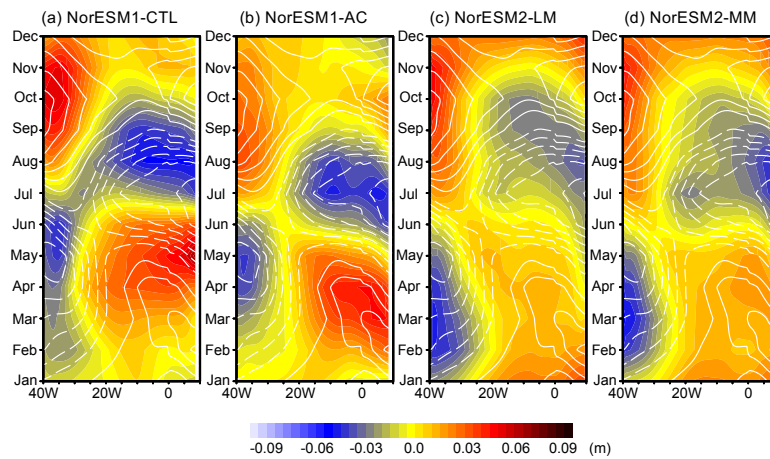


Figure S3. Hovmöller plot of sea surface height anomaly from annual mean (averaged between 3S-3N). The contour is for AVISO observation (countouru interval is 0.01m, 1993-2001) and color is for NorESM simulations.

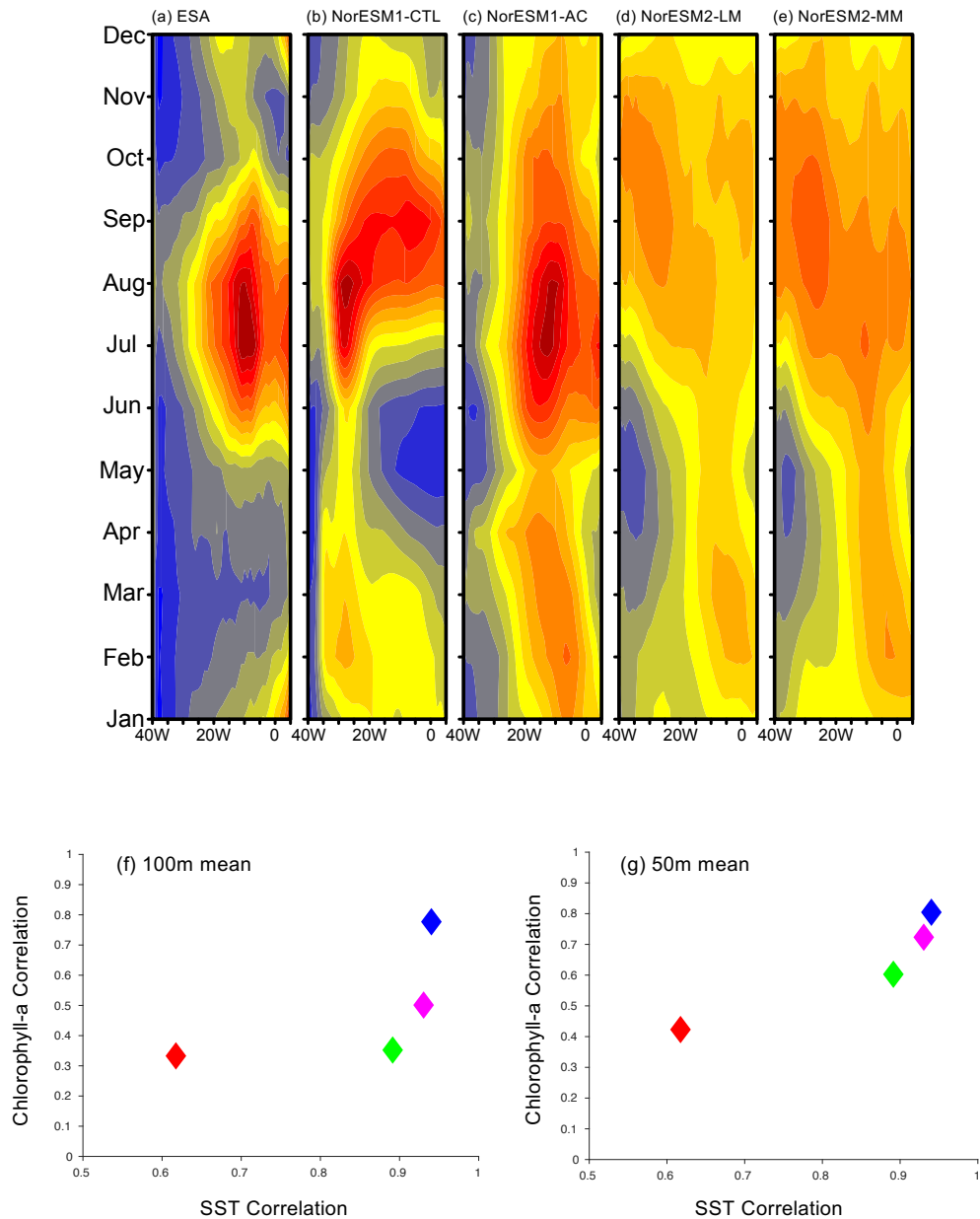


Figure S4

(a)-(e) Same as Fig. 3, but for 50m-mean chlorophyll-a from observation and NorESM simulations. (f) and (g) same as Fig. 5b, but for 100m-mean and 50m-mean chlorophyll-a (mg m^{-3}). For the NorESM simulations, phytoplankton concentration (mol P m^{-3}) is converted to chlorophyll-a (mg m^{-3}) by a factor of $1000 \times 12.01 \times 122 / 60$.

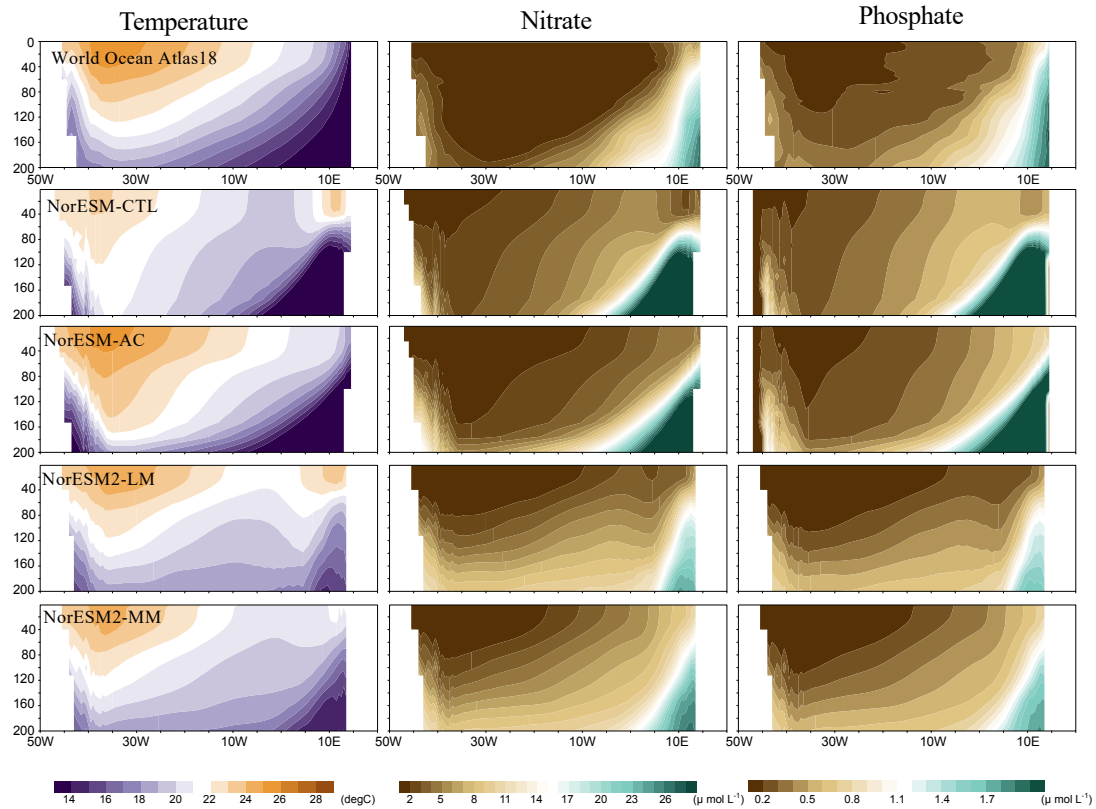


Figure S5
 Depth-longitude section of annual-mean climatology for (left) temperature, (middle) nitrate, and (right) phosphate averaged 25°S and 18°S in observations and each NorESM simulation.

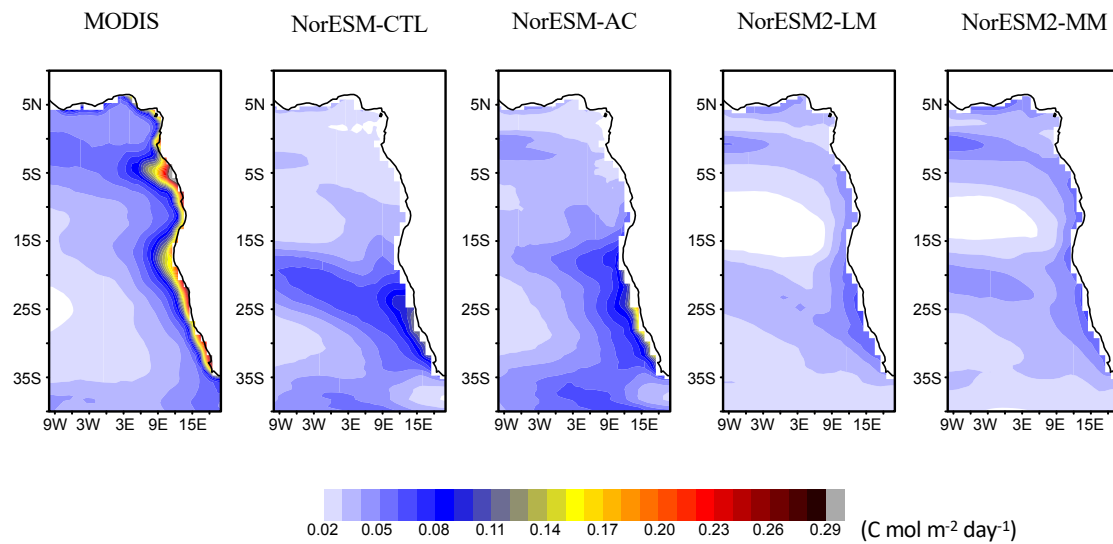


Figure S6
 Annual-mean climatology for primary production in observations and each NorESM simulation.

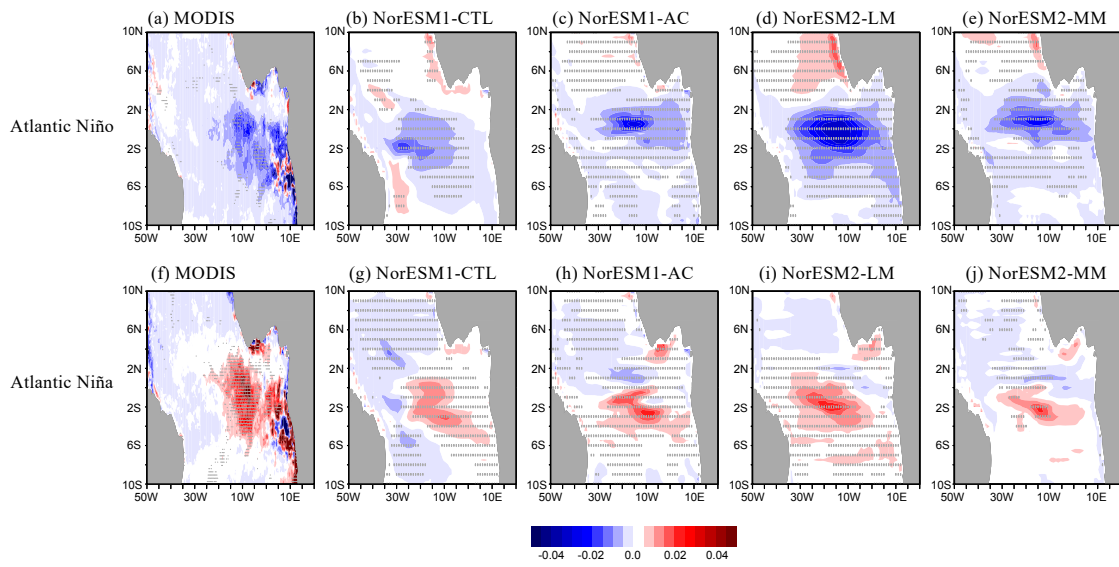


Figure S7

Composite anomalies of primary production for observation and NorESM simulation for (top) Atlantic Niño and (bottom) Atlantic Niña in June-July, respectively.