

1 Supplemental material submitted for the paper

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4 **Bergen earth system model (BCM-C): Model description and regional**  
5 **climate–cycle feedbacks assessment**

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11 **Introduction:**

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13 This supplemental material contains two figures. Figure 1 shows time-series  
14 of annual land-air CO<sub>2</sub> fluxes, terrestrial vegetation, soil, and litter carbon con-  
15 tent simulated by the terrestrial component of the BCM-C. Figure 2 shows  
16 time-series of annual air-sea CO<sub>2</sub> fluxes, net primary production, particle or-  
17 ganic carbon export, and calcite export simulated by the ocean component of  
18 the BCM-C. Both model outputs are from the last 400 years simulation of the  
19 REF simulation.

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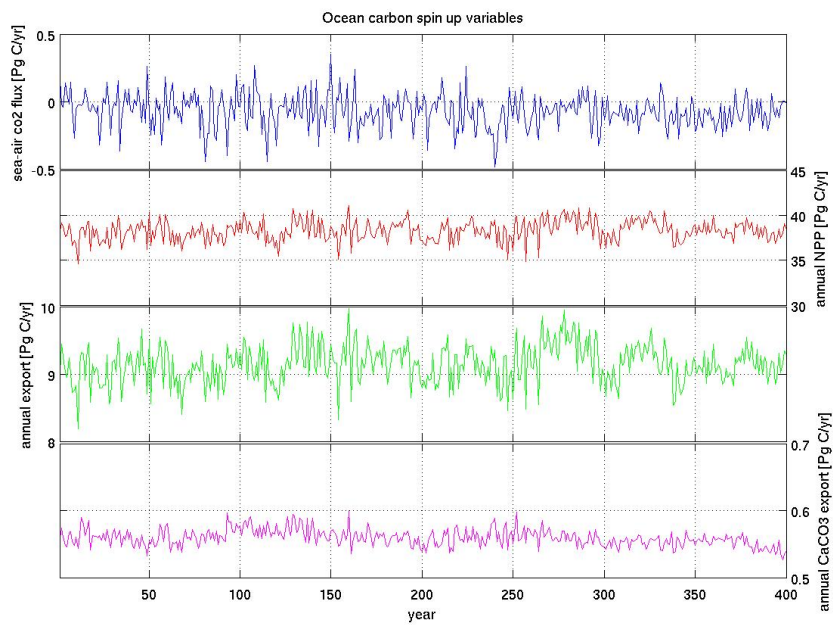


Figure 1: Time-series of annual sea-air carbon fluxes, net primary production, organic carbon export, and calcium carbonate export simulated by the BCM-C. The period represents the last 400 year projections from the REF simulation.

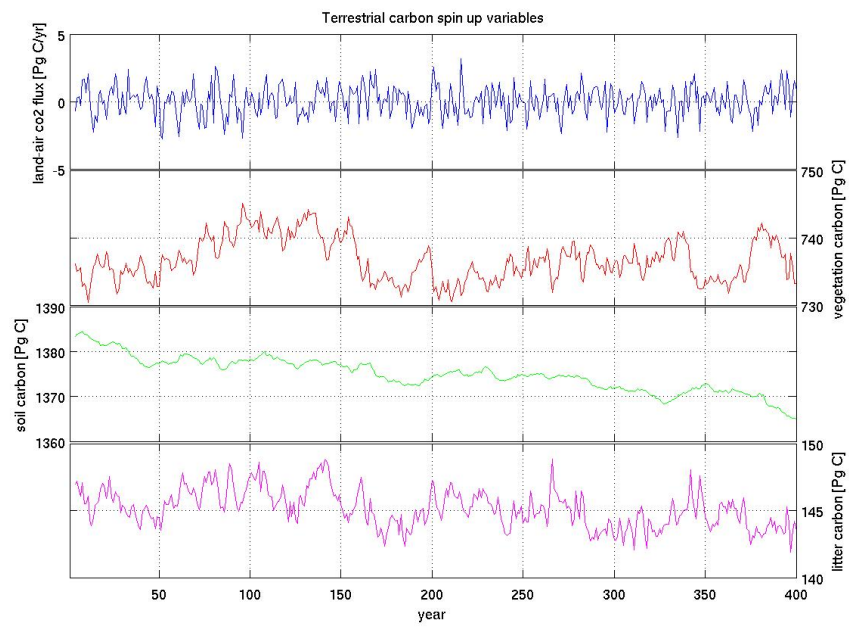


Figure 2: Time-series of annual land-air carbon fluxes, terrestrial vegetation, soil, and litter carbon content simulated by the BCM-C. The period represents the last 400 year projections from the REF simulation.