

Response to Editor's comments

We are grateful to the editor for the positive evaluation of the revised manuscript and for the valuable suggestion. Following the editor's recommendation, we replaced the text in Line 217: "LOVECLIM1.3 includes..." with the following:

"LOVECLIM1.3 is an Earth system model of intermediate complexity (Goosse et al., 2010). In this study, its atmosphere (ECBilt), ocean and sea-ice (CLIO) and terrestrial biosphere (VECODE) components are interactively coupled. ECBilt is a quasi-geostrophic potential vorticity atmospheric model with 3 levels and a T21 horizontal resolution. CLIO consists of an ocean general circulation model coupled to a comprehensive thermodynamic–dynamic sea-ice model. Its horizontal resolution is 3° by 3°, and there are 20 levels in the ocean. VECODE is a reduced-form model of vegetation dynamics and of the terrestrial carbon cycle, and it simulates two plant function types, tree and grass."

Goosse, H., Brovkin, V., Fichefet, T., Haarsma, R., Huybrechts, P., Jongma, J., Mouchet, A., Selten, F., Barriat, P.-Y., Campin, J.-M., Deleersnijder, E., Driesschaert, E., Goelzer, H., Janssens, I., Loutre, M.-F., Maqueda, M. A., Opsteegh, T., Mathieu, P.-P., Munhoven, G., Pettersson, E. J., Renssen, H., Roche, D. M., Schaeffer, M., Tartinville, B., Timmermann, A., and Weber, S. L.: Description of the Earth system model of intermediate complexity LOVECLIM version 1.2, *Geosci. Model Dev.*, 3, 603–633, <https://doi.org/10.5194/gmd-3-603-2010>, 2010.