

Interactive comment on “Regional seesaw between North Atlantic and Nordic Seas during the last glacial abrupt climate events” by Mélanie Wary et al.

Anonymous Referee #1

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This paper presents interesting reconstructions of sea-surface conditions in the North Atlantic and Nordic Seas for Marine Isotopic Stage 3, based on dinocyst assemblages and planktonic forams, as well as climate modelling. This is a very well written paper, well presented and argued, with little to fault. The only aspect I would like to have seen being discussed is the possible forcing of productivity on dinocyst assemblages, in particular the high abundance of *I. minutum*, which is recognized as a tracer of sea-ice cover, but also abundant in high nutrient environments (see Zonneveld et al 2013). Further studies by Heikkilä et al (2014, 2016) also suggest a more complex response of this species to sea-ice environments. Based on these ecological findings, how would it affect your interpretation?

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Heikkilä, M., Pospelova, V., Forest, A., Stern, G.A., Fortier, L., Macdonald, R.W. Dinoflagellate cyst production over an annual cycle in seasonally ice-covered Hudson Bay (2016) *Marine Micropaleontology*, 125, pp. 1-24 Heikkilä, M., Pospelova, V., Hochheim, K.P., Kuzyk, Z.Z.A., Stern, G.A., Barber, D.G., Macdonald, R.W. Surface sediment dinoflagellate cysts from the Hudson Bay system and their relation to freshwater and nutrient cycling (2014)

Interactive comment on Clim. Past Discuss., doi:10.5194/cp-2017-14, 2017.

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