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Interactive comment on "Review Article: How does glacier discharge affect marine biogeochemistry and primary production in the Arctic?" *by* Mark J. Hopwood et al.

Mark J. Hopwood et al.

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Yes thanks, we are aware of this new article and have updated the revised text with several relevant 2019 papers published in the past few months.

With respect to the region discussed by Hendry et al., we have already presented full depth Si profiles for this fjord and associated literature which covers the Si cycle and diatom activity in this fjord extensively.

The offshore work reported by Hendry et al., is more directly linked to benthic processes occurring in shelf sediments than it is to direct meltwater discharge into the

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Discussion paper

marine environment. We specifically focused this review on meltwater discharge because a review extending to icebergs/glacial particles/shelf sediments & benthic reprocessing etc would be incredibly extensive.

However, whilst we did mention very briefly the role of benthic processes in a few contexts and pick up briefly on benthic-pelagic coupling in Kongsfjorden (without labelling this as such), we neglected to specifically link glaciers, to shelf sediments and benthic processes, back to water column biogeochemistry. Such processes are well investigated in benthic fjord scale studies in at least some parts of Greenland and Svalbard (e.g. in Kongsfjorden and Young Sound). We will therefore add a few sentences to outline the basic concept of benthic processes and shelf sediments both in the introduction, in the corresponding field site descriptions and in section 11.

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