

Interactive comment on “Resilience to temperature and pH changes in a future climate change scenario in six strains of the polar diatom *Fragilariopsis cylindrus*” by M. Pančić et al.

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General Comments:

This study investigates the effect of acidification and temperature on six different strains of the polar diatom *Fragilariopsis cylindrus* collected from Disko Bay, Greenland. The differences in growth rates within and between strains revealed a significant interaction between pH and temperature. Results also showed that growth rates, although variable between strains, generally increased with increasing temperature, whilst generally decreased with increasing acidification.

Overall, the authors should be congratulated on this manuscript. This is a well written
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and thorough paper which adds substantially to our limited knowledge on the resilience of phytoplankton populations to changing oceanic conditions.

A few very minor comments:

Abstract: I think it is important to state that DIC, nutrients and molecular characterisation (ITS) was included in this study.

Materials and Methods: what depth were the water samples collected and what was the collection method?

It is not obvious why the strains were reduced in number beyond the first set of experiments. This could be made clearer.

Regards, Penelope Ajani

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