

Biogeosciences Discuss., referee comment RC1  
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## Comment on bg-2021-279

Anonymous Referee #1

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Referee comment on "Sensitivity of plankton assemblages to hydroclimate variability in the Barents Sea" by Elliott L. Price et al., Biogeosciences Discuss.,  
<https://doi.org/10.5194/bg-2021-279-RC1>, 2021

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Review <https://bg.copernicus.org/preprints/bg-2021-279/>

Price et al., Sensitivity of plankton assemblages ...

In this ms the authors present material „to further our understanding how climate change may shape the stucture of the pelagic ecosystem in the Arctic“ (lines 13/14), by studying the sensitivity of plankton assemblages to hydroclimate variability in the Barents Sea (title) and use, among others, data from a CPR line from northen Norway to the south of Spitsbergen.

However, this CPR line runs along the south-western edge of the Barents Sea – or, seen from another direction – at the north-western edge of the Norwegian Sea. In any way, this is not „in the Barents Sea“, and even less in the „Arctic“ Barents Sea, which to my knowledge is defined by the winter ice edge and/or the Polarfront, the front between Polar and Atlantic water. The position of the CPR line and the apparently exclusive presence of the Atlantic copepod *Calanus finmarchicus* clearly define the working area as „**Atlantic**“. Therefore, all considerations on consequences of climate change and Atlantification on the **polar** food web, which occupy a large room in the ms, are out of place here.

In conclusion I do not recommend this ms for publication in Biogeosciences. Instead, I

suggest to look for another motivation to make the study attractive. Also, I was surprised that the study of O'Dwyer et al. (2001) reporting 13 transects across the BS Opening is not mentioned

Further comments:

Introduction and Discussion are lengthy and too general.

There are many typos etc.

11: the study area is not affected by sea ice

12: The responses ... is critical

21/22: no surprise that plankton is strongly associated with water masses!!!

22: water masses were never defined

75 Climate change induced collapse!!!

98: tha(t)

198 Corethron

254: across a time series

262: **both** of which???

267: "is has a higher energy denisty"???

279: appendicularians

279: Lopez-urrutia

324: such hydroclimates

371: phenological ? changes