

## ***Interactive comment on “Phytoplankton and dimethylsulfide dynamics at two contrasting Arctic ice edges” by Martine Lizotte et al.***

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Received and published: 21 January 2020

This manuscript is a well written and comprehensive review of different parameters determining the dynamics of DMS and DMSP along the ice edges around Greenland and the Canadian arctic. It is a good addition to the currently limited dataset on the relationship between DMS and the sea ice, and highlights the differences between single and multi-year ice. As the Arctic experiences greater ice loss, the importance of the single year ice is going to become more important to the global climate cycle of DMS, but we need to understand the difference to multi-year ice too. This particular aspect was well covered in the final discussion. I recommend this manuscript for publication with the following minor revisions.

C1

L71. Please include a comment to the potential of Bacterioplankton to produce DMSP (Curson et al 2017) as well as break it down.

L426. ‘Bared no significantly’ should be ‘bore no significant’

L577 Reference spell check Stefels and Dijkhuizen 1996

Fig 2 caption. Spell check Pannel to panel

Table 1 and 2 captions. Both these captions are the same, despite different parameters highlighted in the tables. Can the captions be made more unique to describe the data in each table?

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Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2019-422, 2019>.

C2