

Metadata S3

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Exploring controls on the timing of the phytoplankton bloom in western Baffin Bay, Canadian Arctic

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- Description of:

Data S3: In situ observations from the Qikiqtarjuaq sea ice camps 2015 and 2016 (67.4797°N, -63.7895°E). 66399.csv, 66407.csv, 66408.csv, 66412.csv and 66417.csv are a subset of the files available in the dataset Massicotte et al. (2019). <https://doi.org/10.17882/59892>. The paper related to this dataset is Massicotte et al. (2020). <https://doi.org/10.5194/essd-12-151-2020>.

- Files:

- 66399.csv is PAR data.
- 66407.csv is snow and ice thickness data.
- 66408.csv is biomass data in carbon.
- 66412.csv is nutrients data.
- 66417.csv is chlorophyll *a* data.
- hBD.csv is equivalent mixed layer depth calculated with the method of Randelhoff et al. (2017). <https://doi.org/10.1175/JPO-D-16-0200.1>. The (non-smoothed) data are plotted in Oziel et al. (2019), their Fig. 10. <https://doi.org/10.1525/elementa.372>. We thank Laurent Oziel and Achim Randelhoff for the data. The code that generated hBD.csv is not publicly available. The values were smoothed with a span of 7 days.
- siarea.qik.2016.365.32bits.bin is the presence or absence of sea ice. 0 means no sea ice. 1 means sea ice. It is in a convenient format as a forcing field for MITgcm. It is a binary file of 365 values each consisting in a four-bytes float in big-endian.