Metadata S2

Maxime Benoît-Gagné, Stephanie Dutkiewicz, Inge Deschepper, Christiane Dufresne, Dany Dumont, Raphaël Larouche, Laurent Mémery, Gaëtan Olivier & Frédéric Maps

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

Elementa: Science of the Anthropocene

- Description of:

Data S2: Forcing fields for the nutrient concentrations between January 1 and May 15.

no3.bin, po4.bin and sioh4.bin are the nutrient concentrations between January 1 to May 15 for the reference simulation (EXP-0). They are also the *in situ* concentrations at the Qikiqtarjuaq sea ice camps between mid-April and the end of May in 2015 and 2016 (67.4797°N, -63.7895°E). The original data is 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. The code that generated the files no3.bin, po4.bin and sioh4.bin from this original data is not publicly available.

no3_times0_25.bin, no3_times0_50.bin, no3_reference.bin, no3_times2_00.bin and no3_times4_00.bin are the forcing fields for nitrate concentration between January 1 and May 15 for the sensitivity experiment EXP-3.

Each binary file contains 75 values each consisting in a four-bytes float in big endian. Their units are $\mu M = mmol\ m^{-3}$. These 75 values correspond to the depth profile of the configuration available in the variable RC of grid.t001.nc.

- Files:
    - no3_reference.bin: reference nitrate multiplied by 1.
    - no3_times0_25.bin: reference nitrate multiplied by 0.25.
    - no3_times0_50.bin: reference nitrate multiplied by 0.50.
    - no3_times2_00.bin: reference nitrate multiplied by 2.
    - no3_times4_00.bin: reference nitrate multiplied by 4.
    - no3.bin: reference nitrate.
    - po4.bin: reference phosphate.
    - sioh4.bin: reference silicic acid.