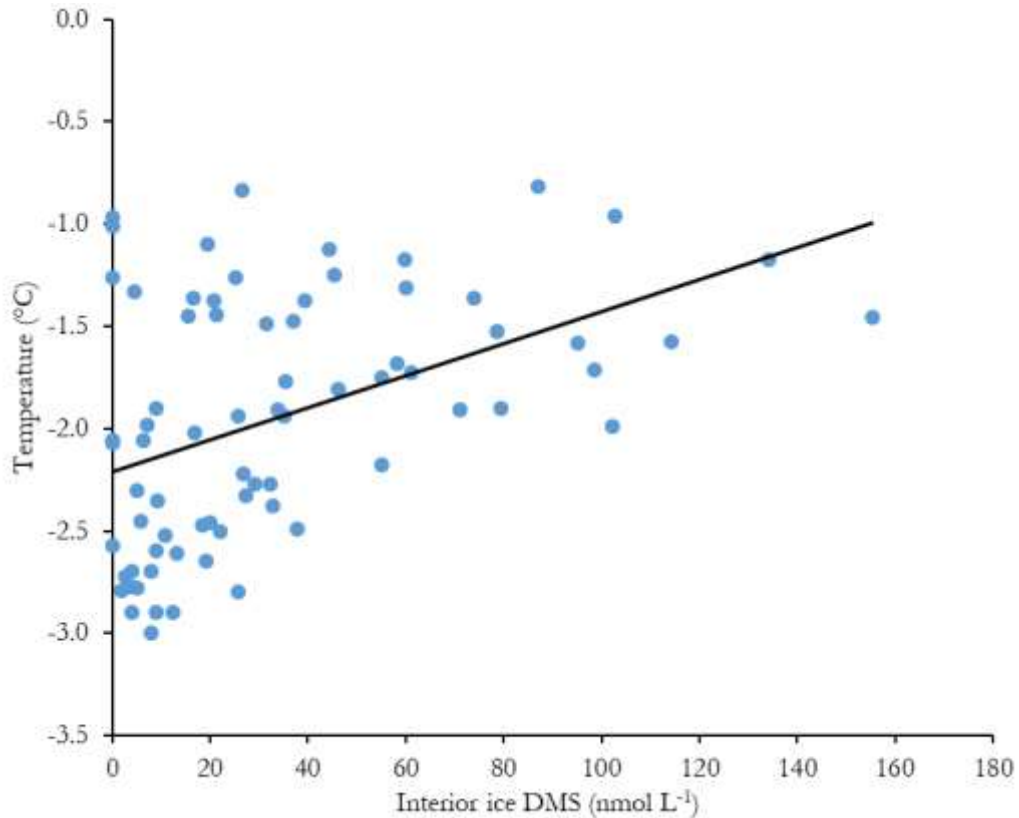


**Figure S1. Relationship between *in situ* temperature and the corresponding bulk-ice DMS concentration in interior ice.**



Each data point represents the *in situ* ice temperature (°C) and corresponding bulk-ice DMS concentration (nmol L<sup>-1</sup>) for a given 0.1-m interior ice section sampled during the study. All of the data points obtained during the successive days of sampling are represented here, i.e., every 0.1-m ice section of each vertical ice profile sampled, except for the bottommost 0.1 m of sea ice. Primary producers aggregate in large colonies in the bottommost 0.1 m of sea ice and become the predominant control of sea-ice DMS concentrations. This plot shows that, in interior sea ice, bulk-ice DMS concentration and *in situ* ice temperature were positively and significantly correlated ( $r_s = 0.44$ ;  $p < 0.05$ ;  $n = 74$ ) throughout the sampling campaign. The non-parametric Spearman's Rho test was used to measure the strength of the association between interior ice DMS and *in situ* temperature as the data were non-normally distributed.