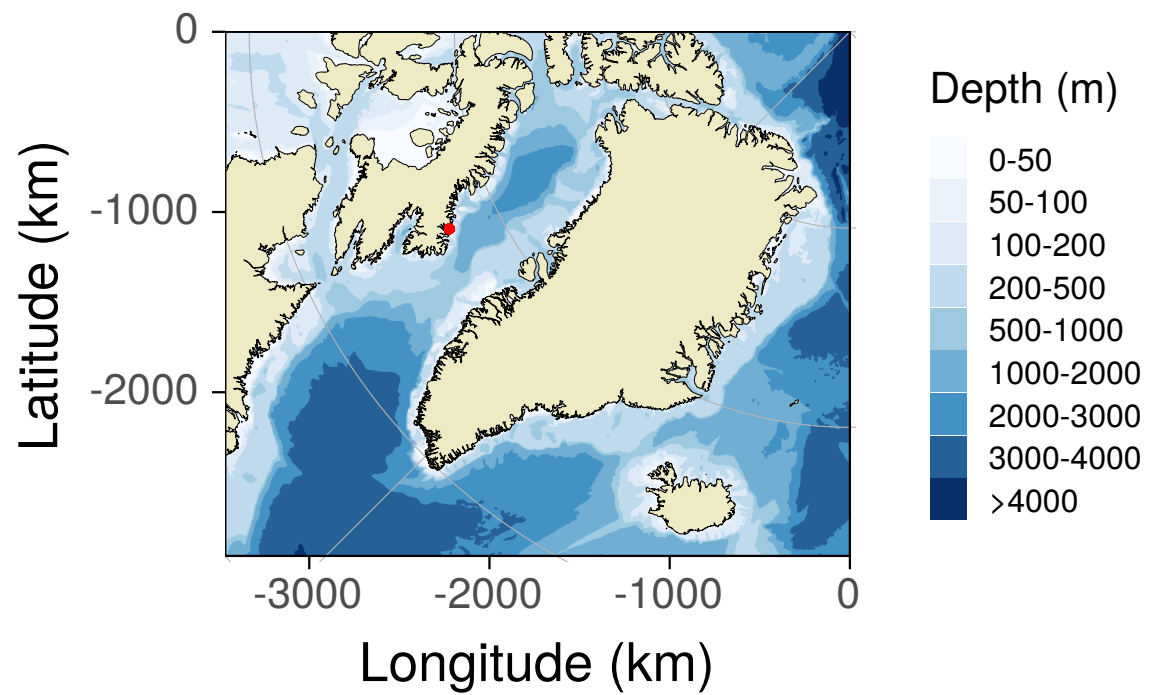
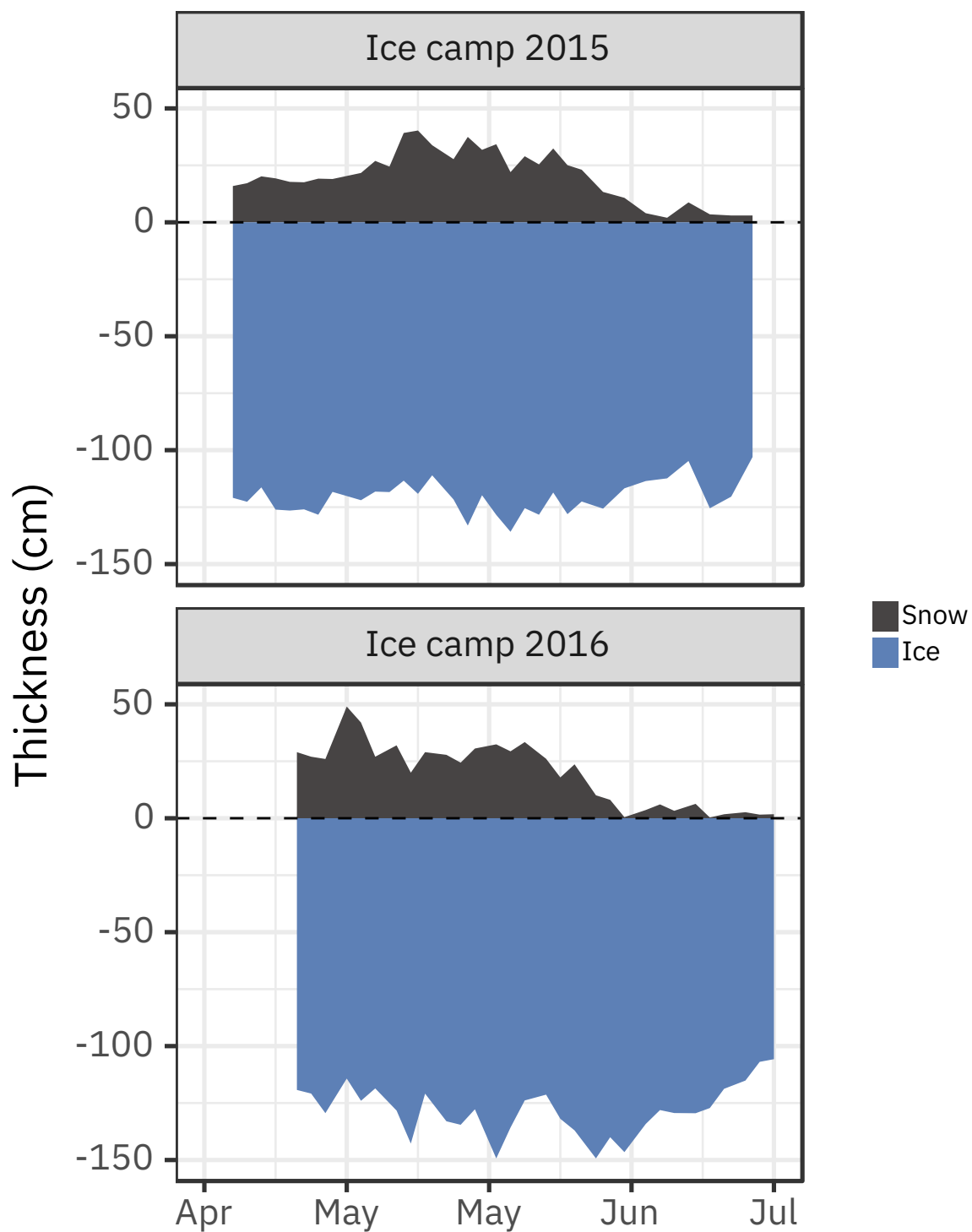


# Figures

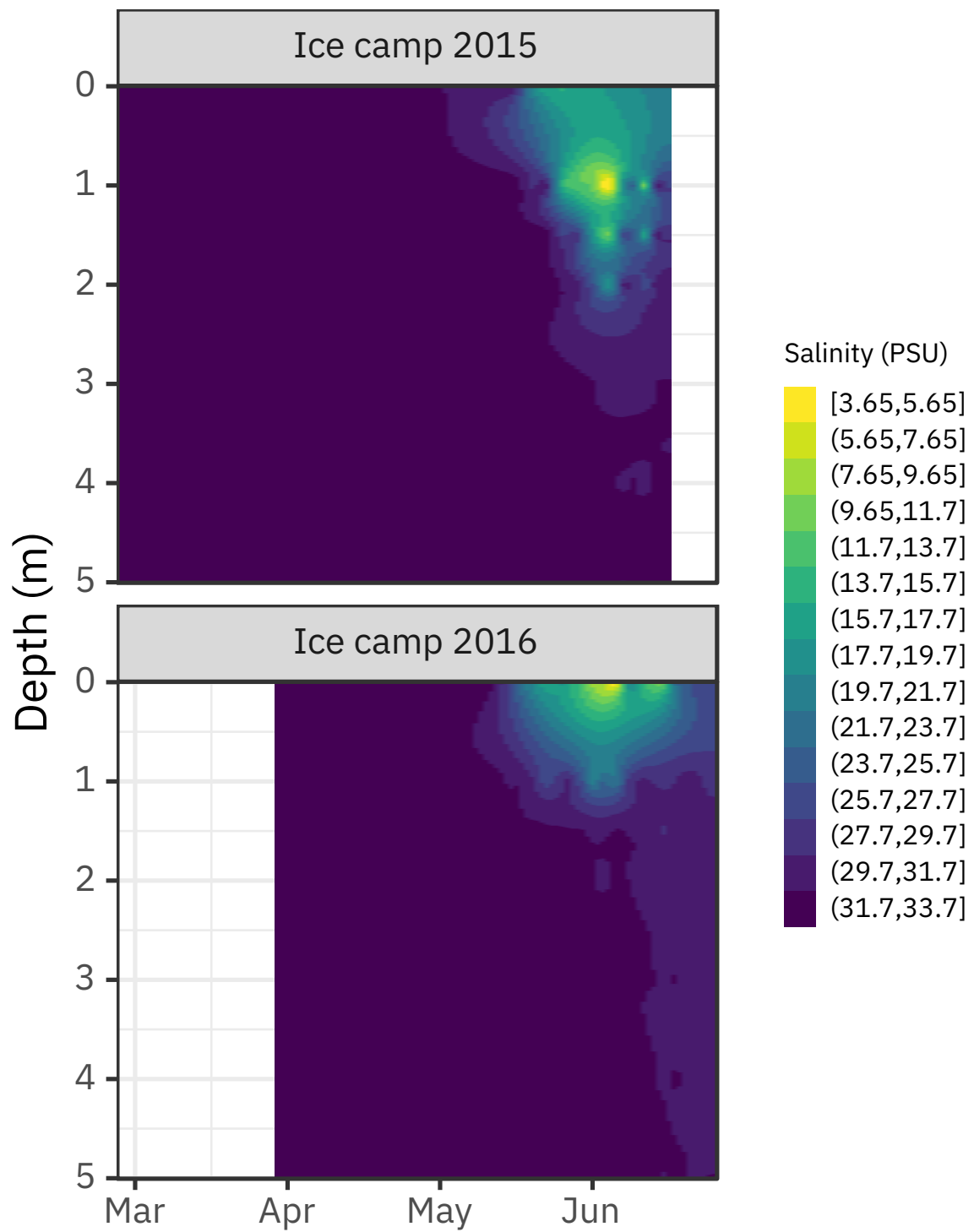
Note that all figures are scaled by a factor of 2 for display.



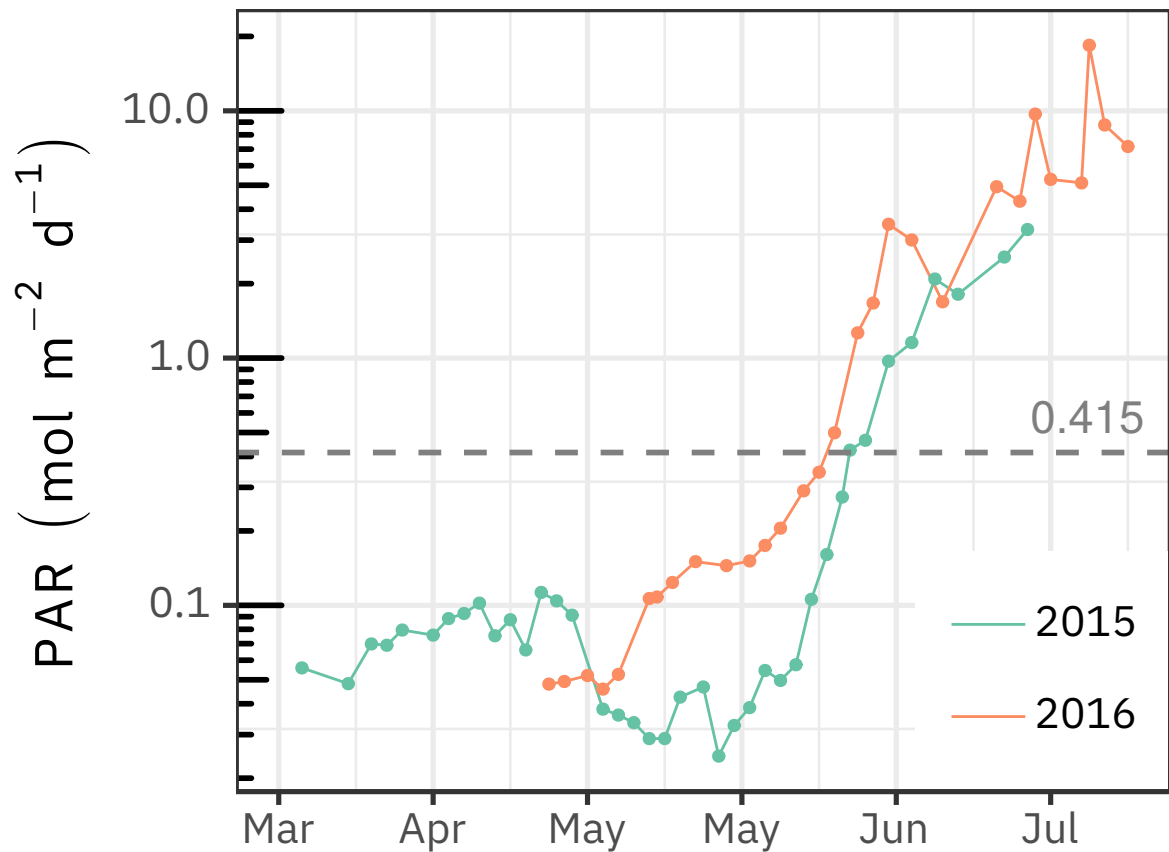
**Figure 1:** Location of the ice camp in the Baffin Bay (red dot) along with the bathymetry.



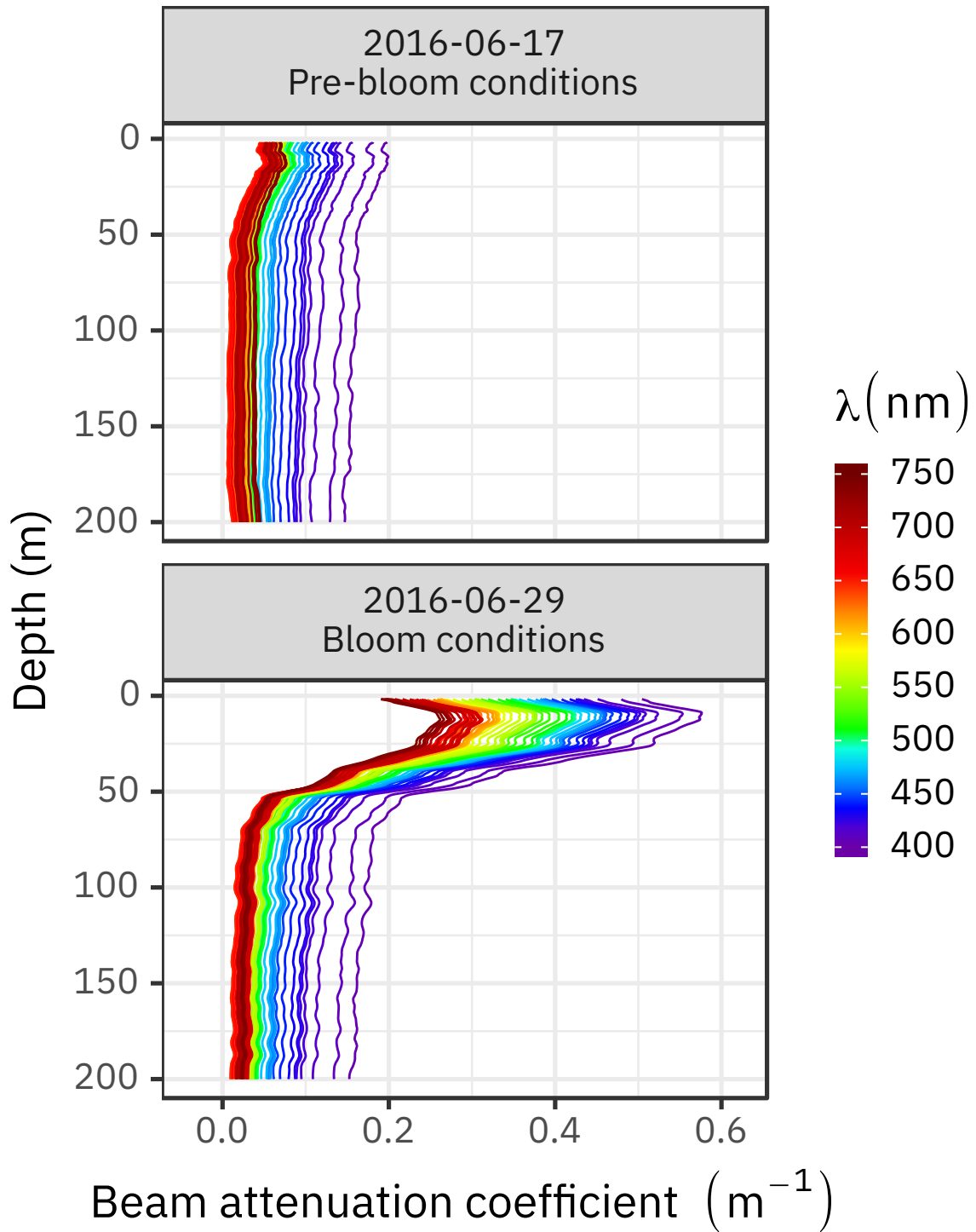
**Figure 2:** Temporal evolution of the snow and sea-ice thickness for both ice camp missions. The dashed horizontal line represents the snow/ice interface.



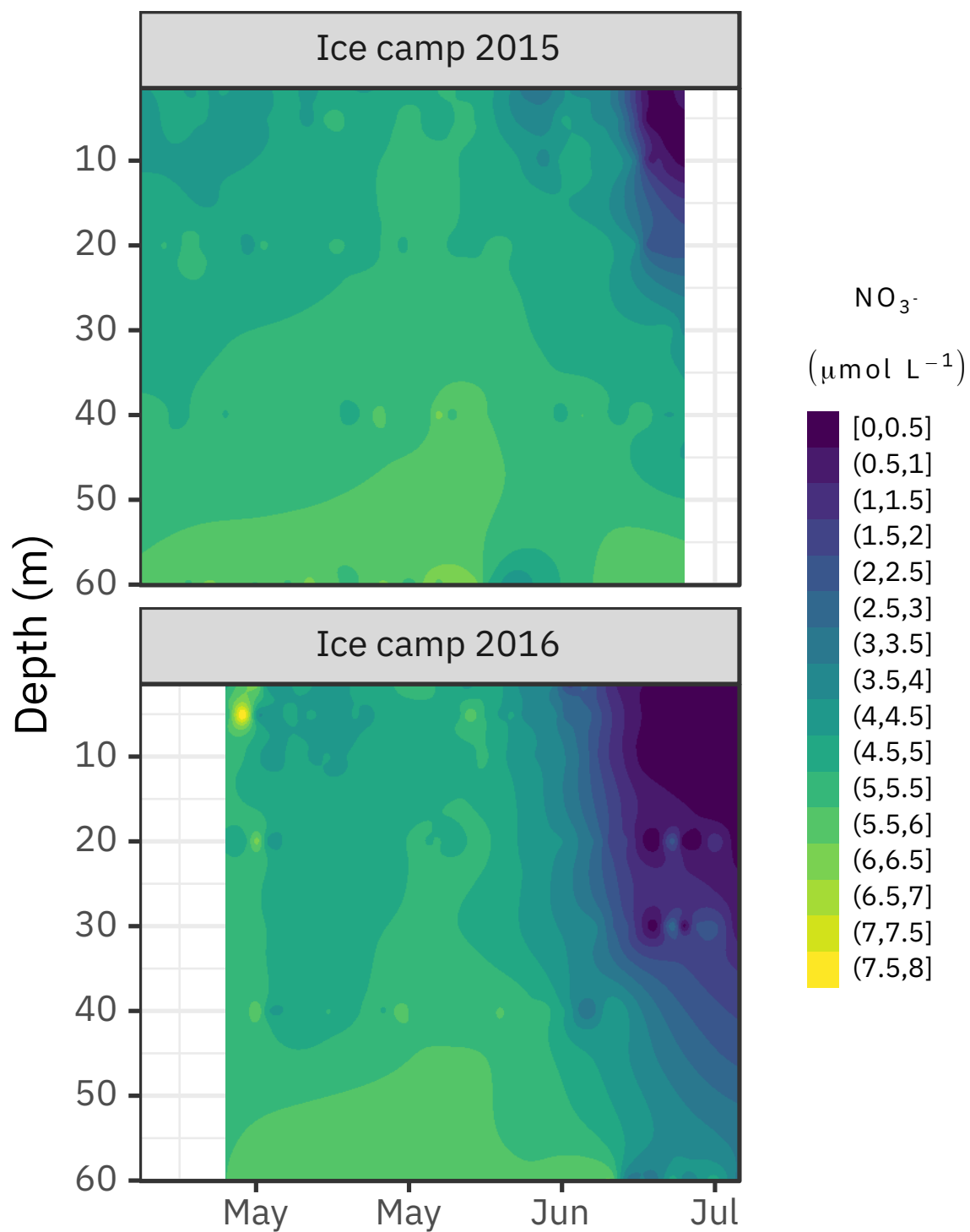
**Figure 3:** Salinity.



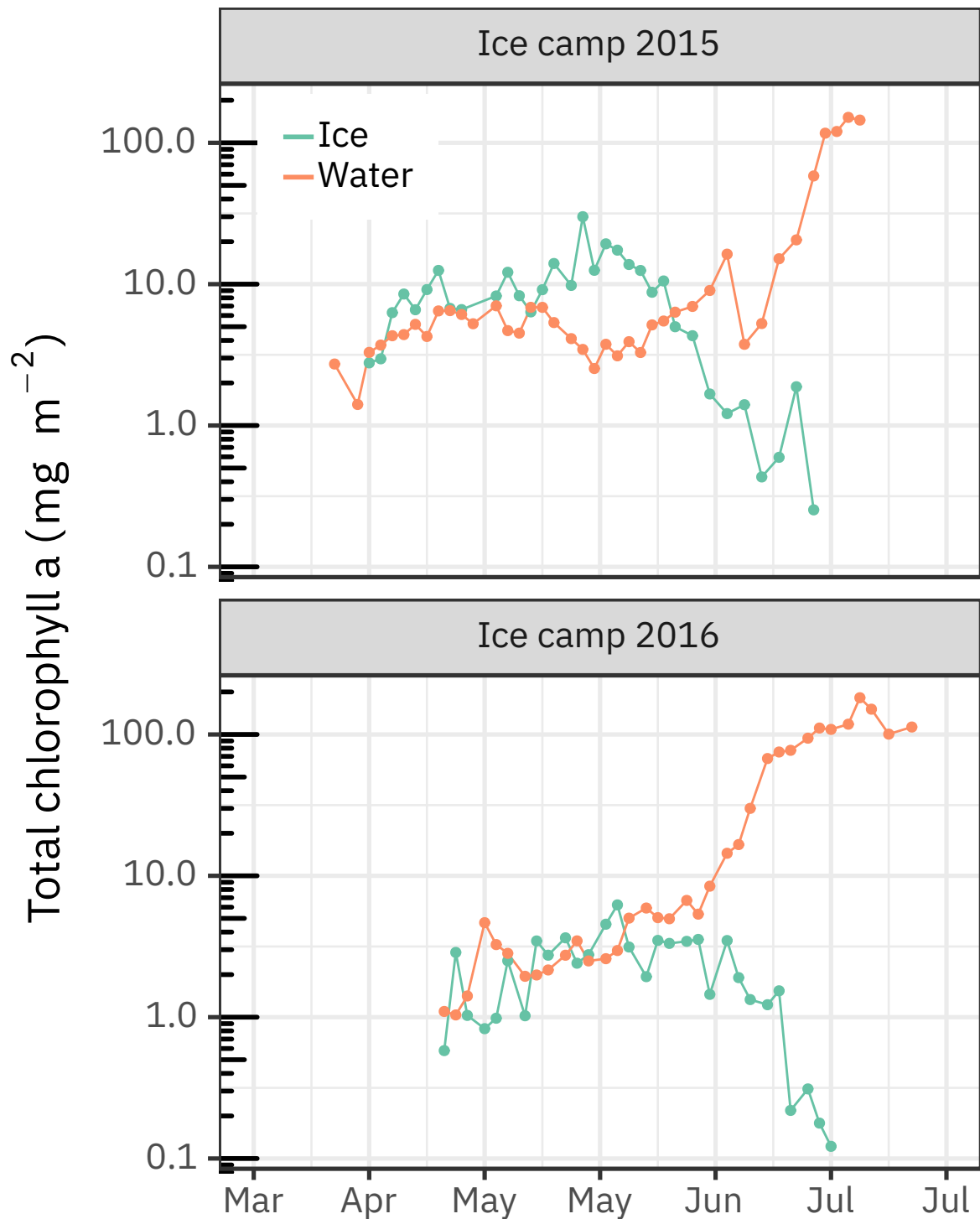
**Figure 4:** Temporal evolution of daily photosynthetically available radiation (PAR) at the sea-ice/water interface (1.3 m depth) for both ice camp missions. The horizontal dashed line show the 0.415 mol photons m<sup>-2</sup> d<sup>-1</sup> threshold often used in the literature as the minimum light requirement for primary production.



**Figure 5:** Beam attenuation coefficients ( $c$ ,  $\text{m}^{-1}$ ) measured in 2016 using an ACS before and during the phytoplankton bloom. Note that the colors of the lines correspond to wavelength frequencies.



**Figure 6:** Temporal evolution of the nitrates in the first 60 m of the water column for both ice camp missions.



**Figure 7:** Temporal evolution of chlorophyll a in ice and water (depth-integrated) for both ice camp missions. Note that the water chlorophyll a have been integrated over the first 100 m of the water column whereas the ice chlorophyll a was measured on the bottom 0-10 cm of the ice cores.