MALINA

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Abstract.

1 Introduction

The Mackenzie River is the largest single source of terrestrial particles entering the Arctic Ocean (Doxaran et al., 2015 and references therein).

2 Figures

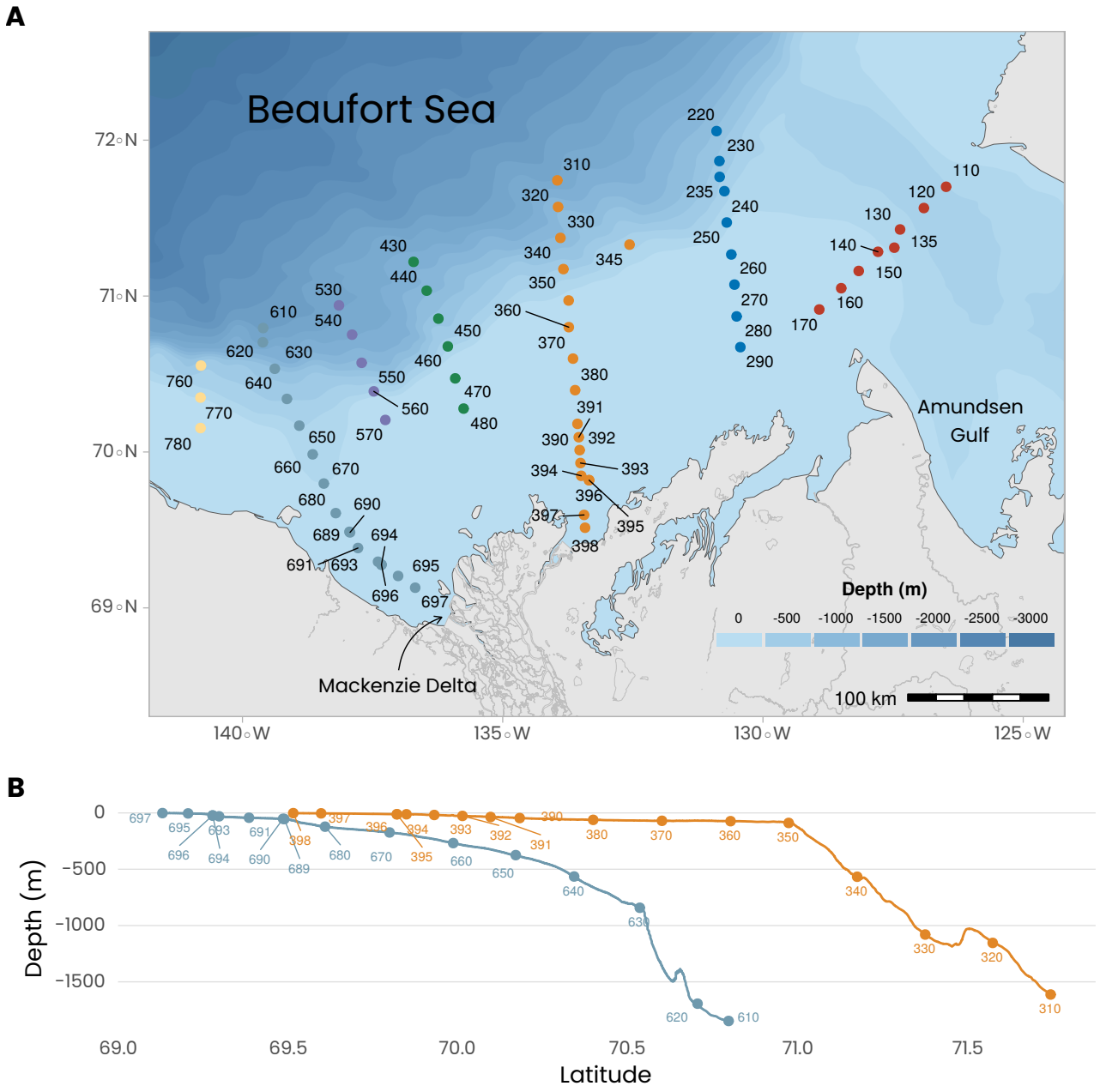

Figure 1. (**A**) Localizations of the sampling sites visited during the MALINA 2009 campaign. The colors of the dots represent the seven transects visited during the mission. (**B**) Latitudinal bathymetric profiles for transects 600 and 300. Bathymetric data from GEBCO (https://download.gebco.net/).

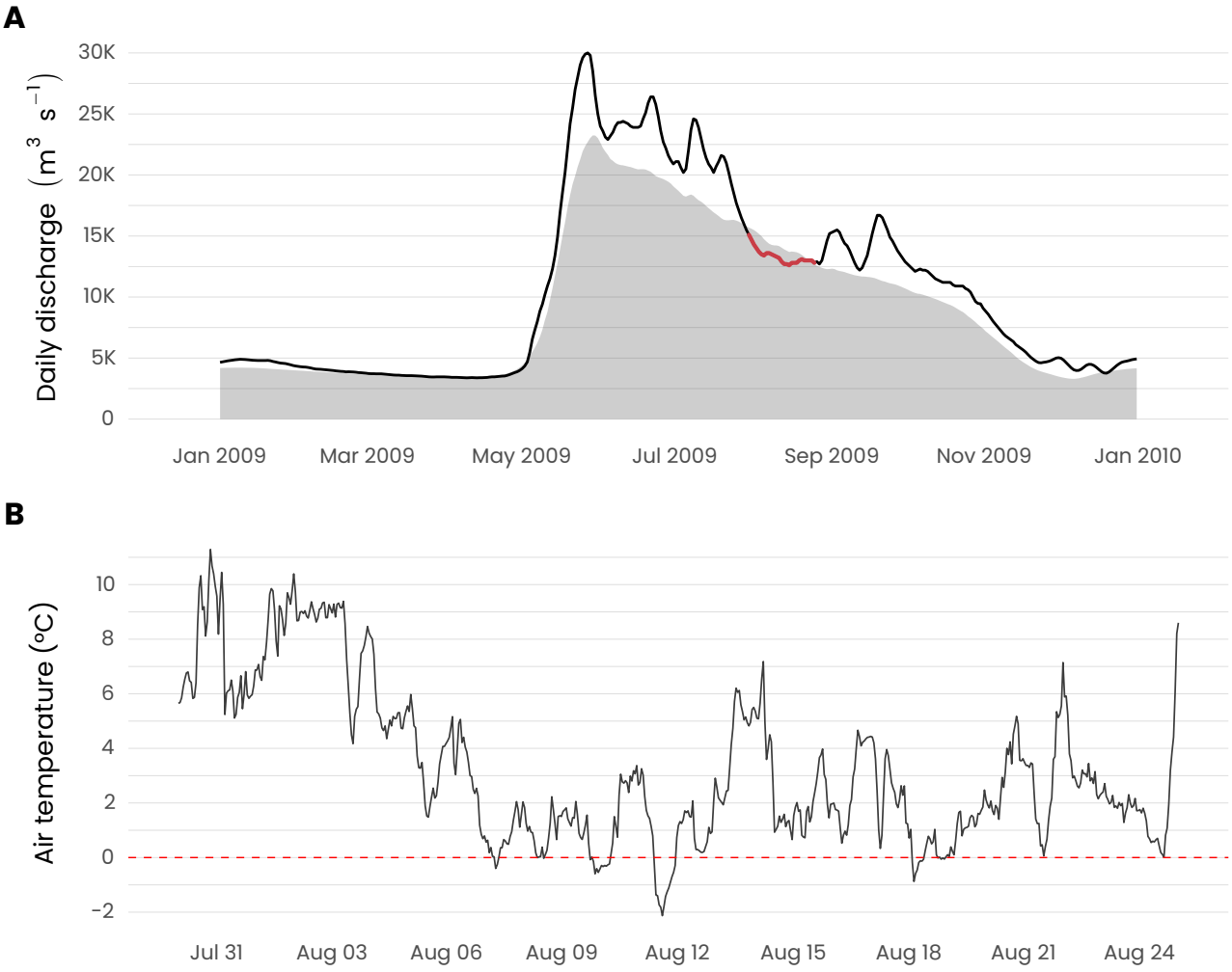

Figure 2. (**A**) Daily discharge of the Mackenzie river at the Arctic Red River junction (station 10LC014). The black line corresponds to the 2009 discharge whereas the colored segment identifies the period of the MALINA campaign. The shaded are is the mean discharge calculated between 1972 and 2016. Discharge data from Government of Canada (https://wateroffice.ec.gc.ca/search/historical_e.html). (**B**) Hourly air temperature recorded from the Amundsen's foredeck meteorological tower during the campaign.

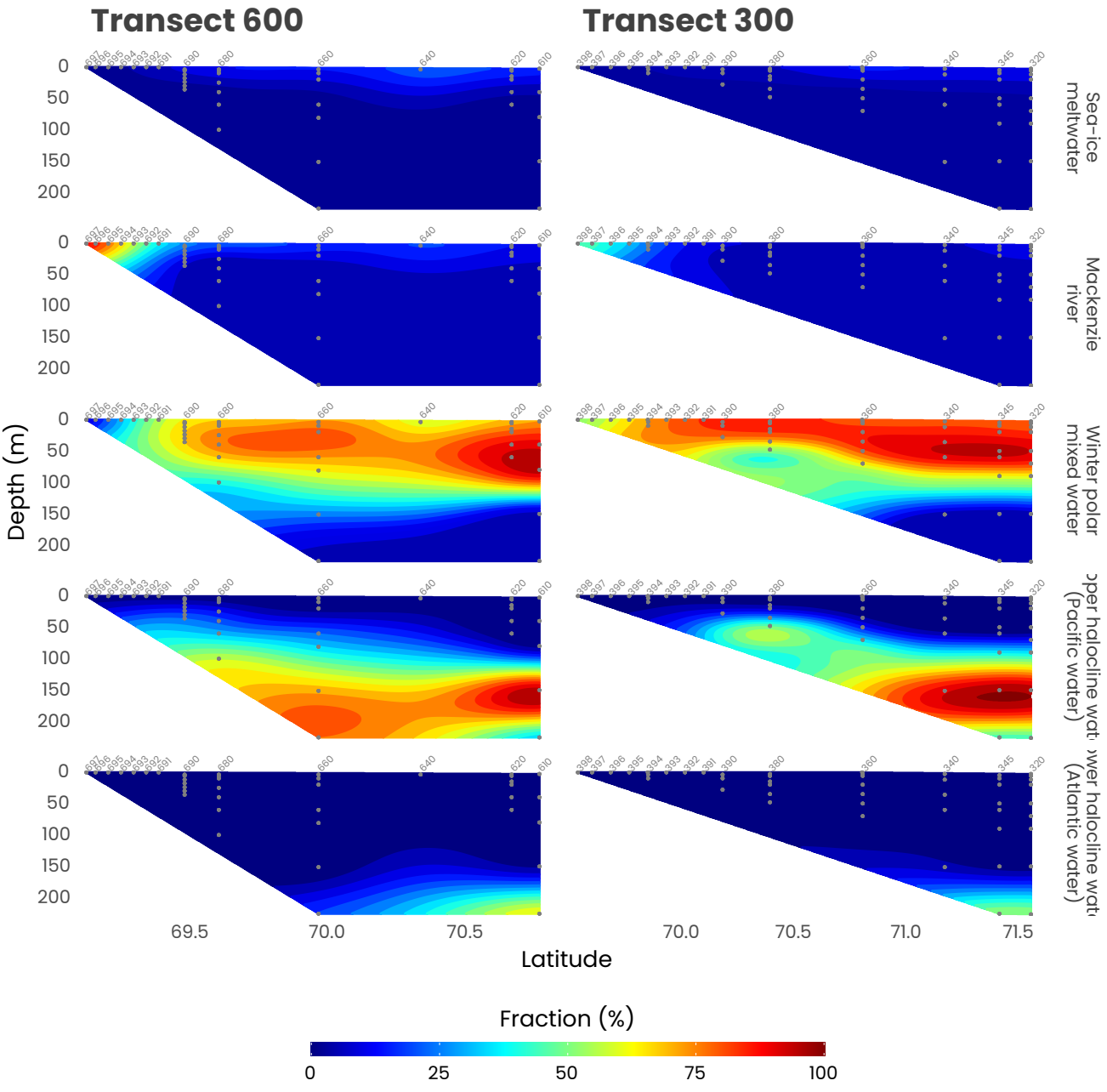

Figure 3. Latitudinal distribution of source water types along transects 600 and 300 (see Fig. 1). Station numbers are identified in light gray on top of each panel.

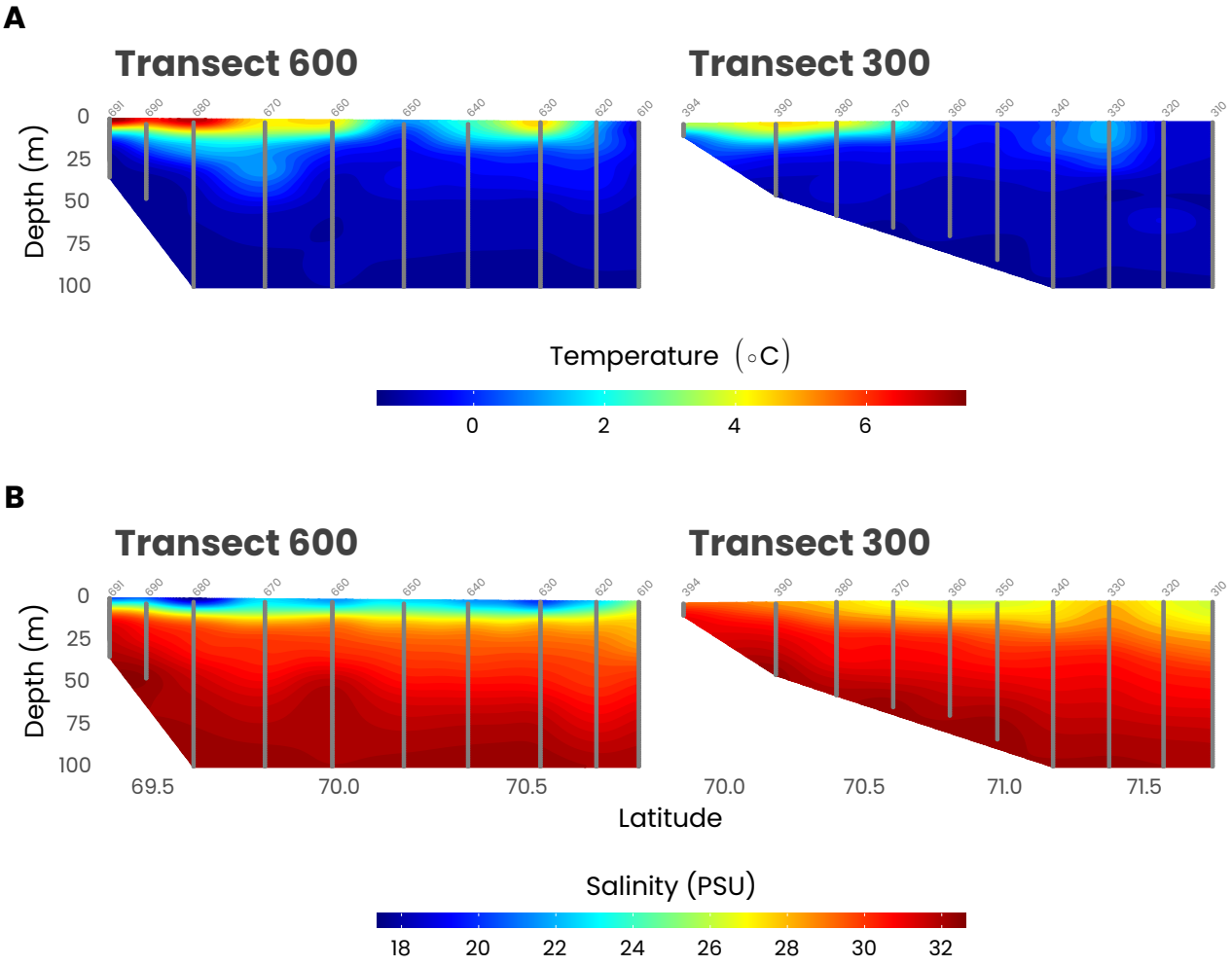

Figure 4. Latitudinal cross-sections of temperature (**A**) and salinity (**B**) measured by the CTD (gray dots) in transects 600 and 300. Station numbers are identified in light gray on top of each panel.

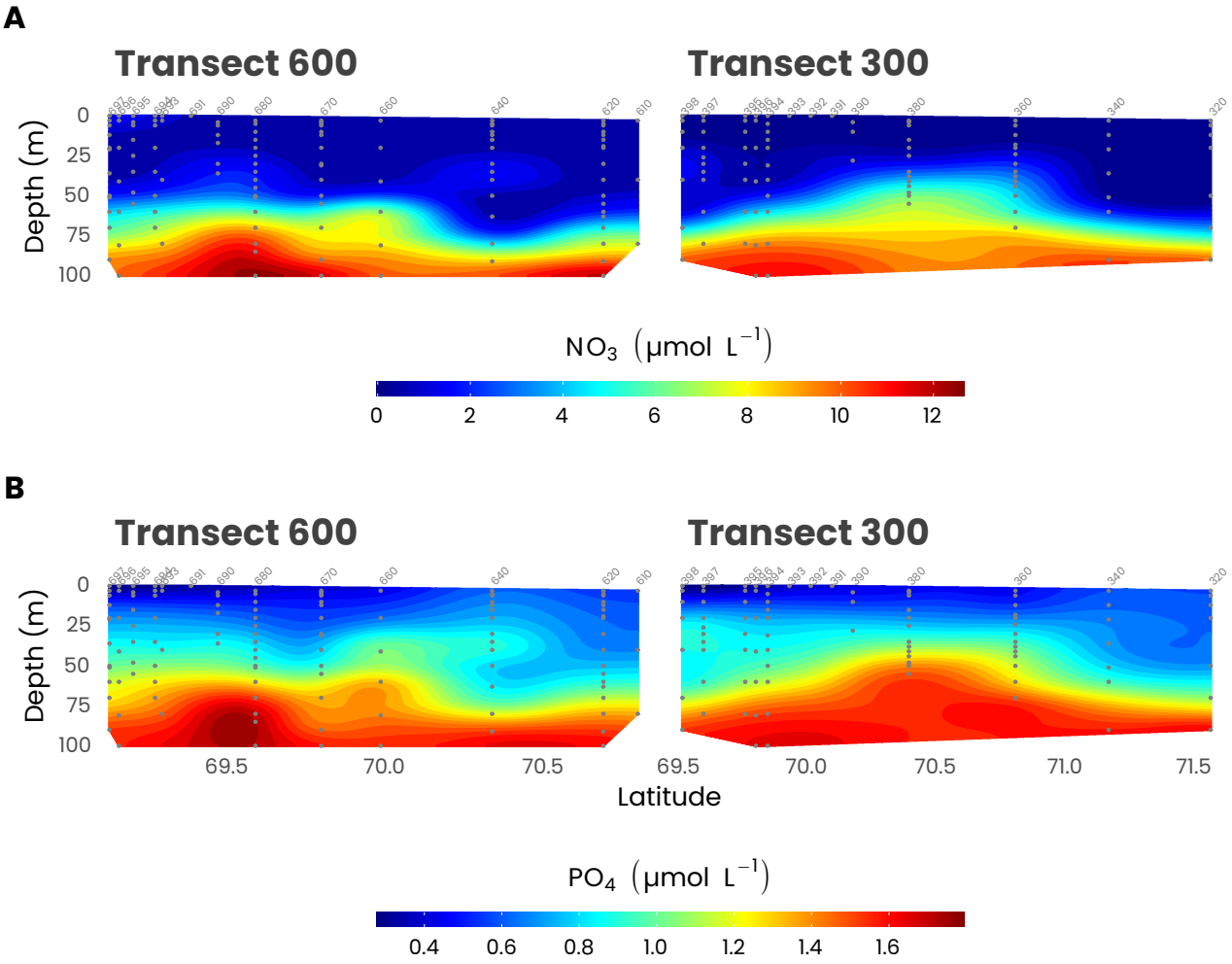

Figure 5. Latitudinal cross-sections of NO_3^- and PO_4^{3-} measured from niskin bottles (gray dots) in transects 600 and 300. Station numbers are identified in light gray on top of each panel.

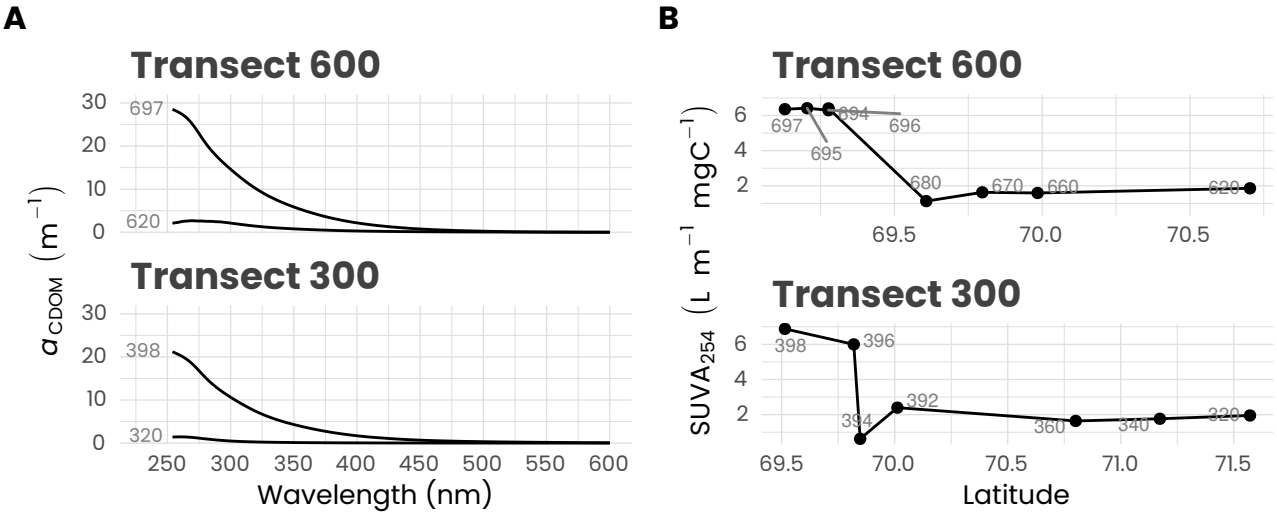

Figure 6. (**A**) Absorption spectra between 254 and 600 nm of chromophoric dissolved organic matter (a_{CDOM}) measured at the surface for the northern and southern stations of the transects 600 and 300. (**B**) Specific UV absorbance at 254 nm ($SUVA_{254}$, i.e. absorption of light at 254 nm per unit of carbon) at surface for stations along transects 600 and 300. Stations are identified in light gray.

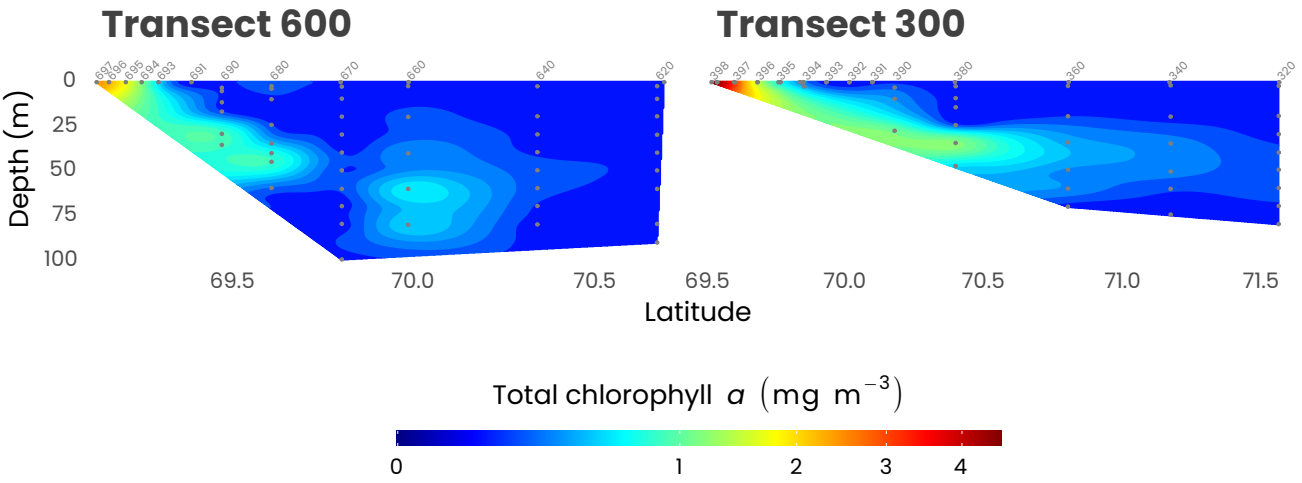

Figure 7. Latitudinal cross-sections of total chlorophyll-a measured from HPLC (gray dots) in transects 600 and 300. Station numbers are identified in light gray on top of each panel.

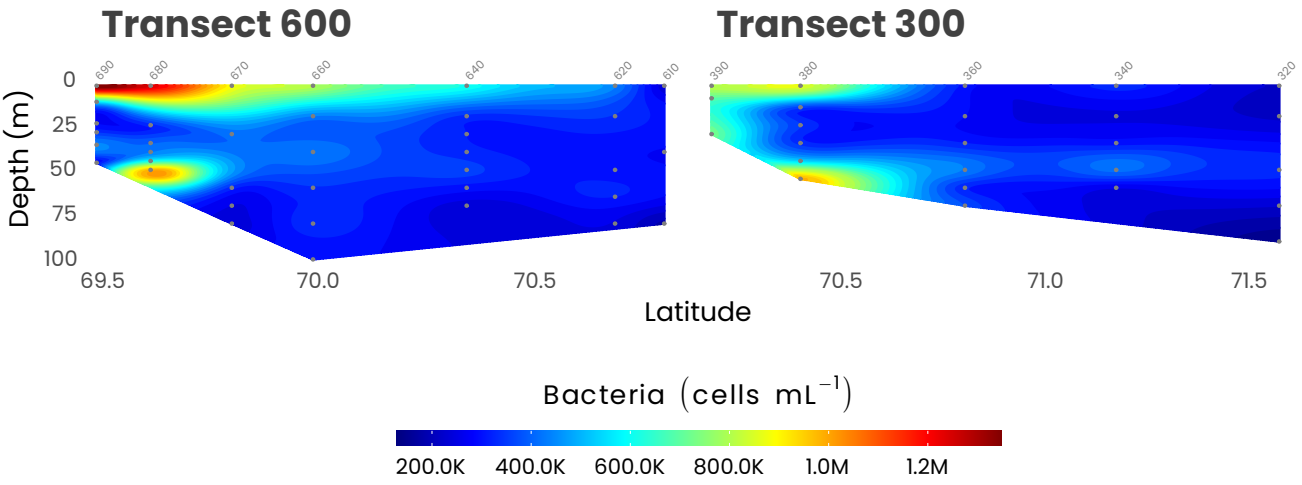

Figure 8. Latitudinal cross-sections of bacterial abundance measured from flow cytometry (gray dots) in transects 600 and 300. Station numbers are identified in light gray on top of each panel.

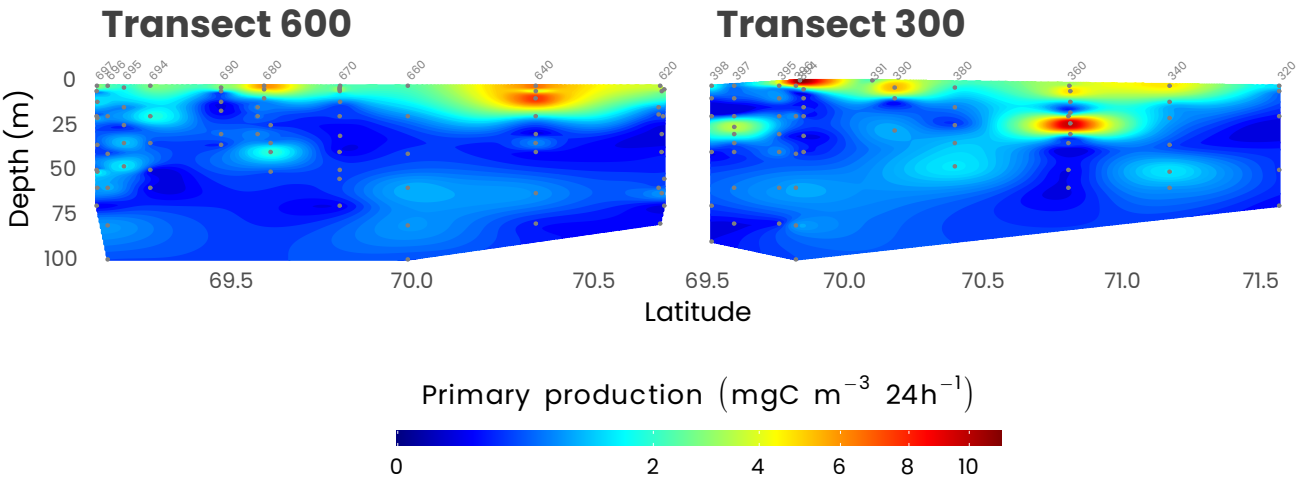

Figure 9. Latitudinal cross-sections of primary production measured from xxx (gray dots) in transects 600 and 300. Station numbers are identified in light gray on top of each panel.

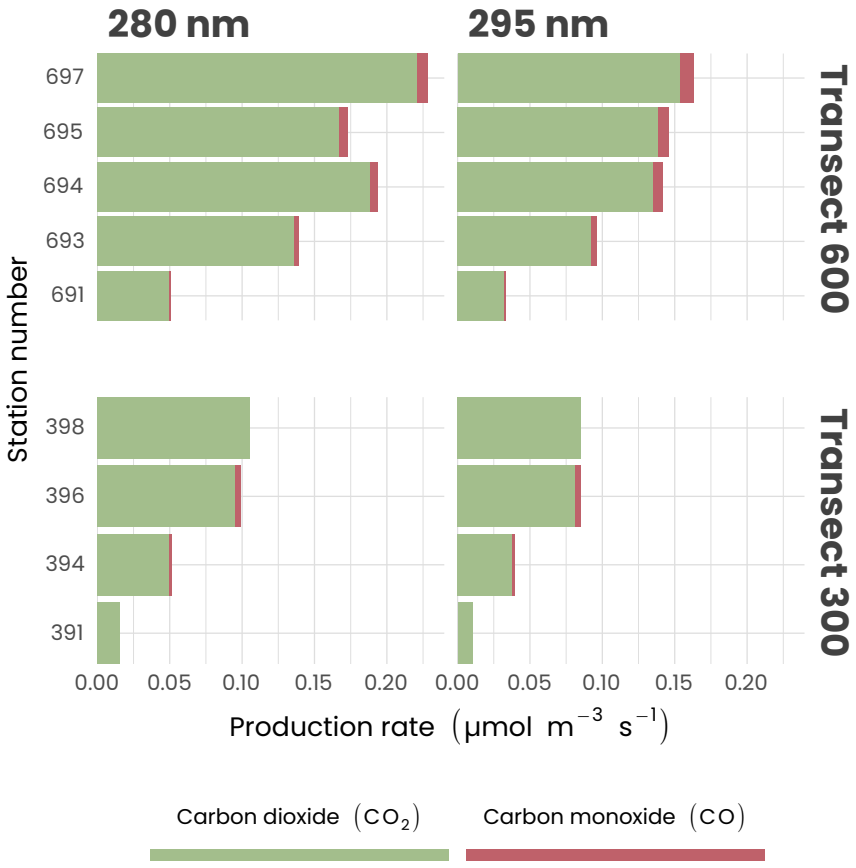

Figure 10. CO and CO_2 production measured at 280 and 295 nm at surface for stations of transects 600 and 300 (bold numbers on the right of the graph).

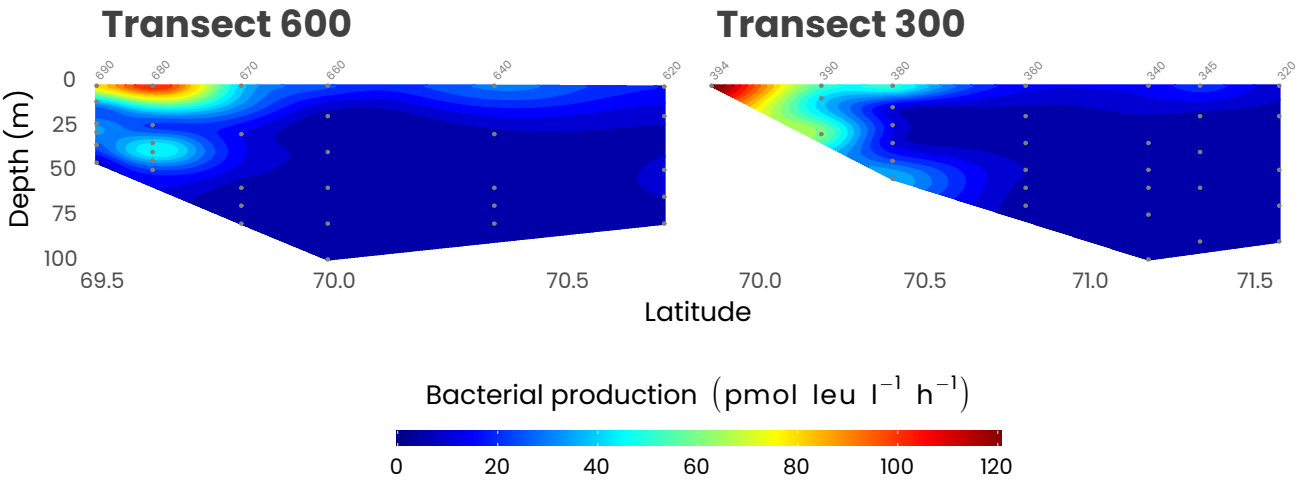

Figure 11. Latitudinal cross-sections of bacterial production measured from XXX (gray dots) in transects 600 and 300. Station numbers are identified in light gray on top of each panel.

3 Code and data availability

TODO

Author contributions.

Competing interests. The authos declar no competing interests.

Acknowledgements. xxxx

References

Doxaran, D., Devred, E., and Babin, M.: A 50 terrestrial particles delivered by the Mackenzie River into the Beaufort Sea (Canadian Arctic Ocean) over the last 10 years, Biogeosciences, 12, 3551–3565, https://doi.org/10.5194/bg-12-3551-2015, www.biogeosciences.net/12/3551/2015/, 2015.