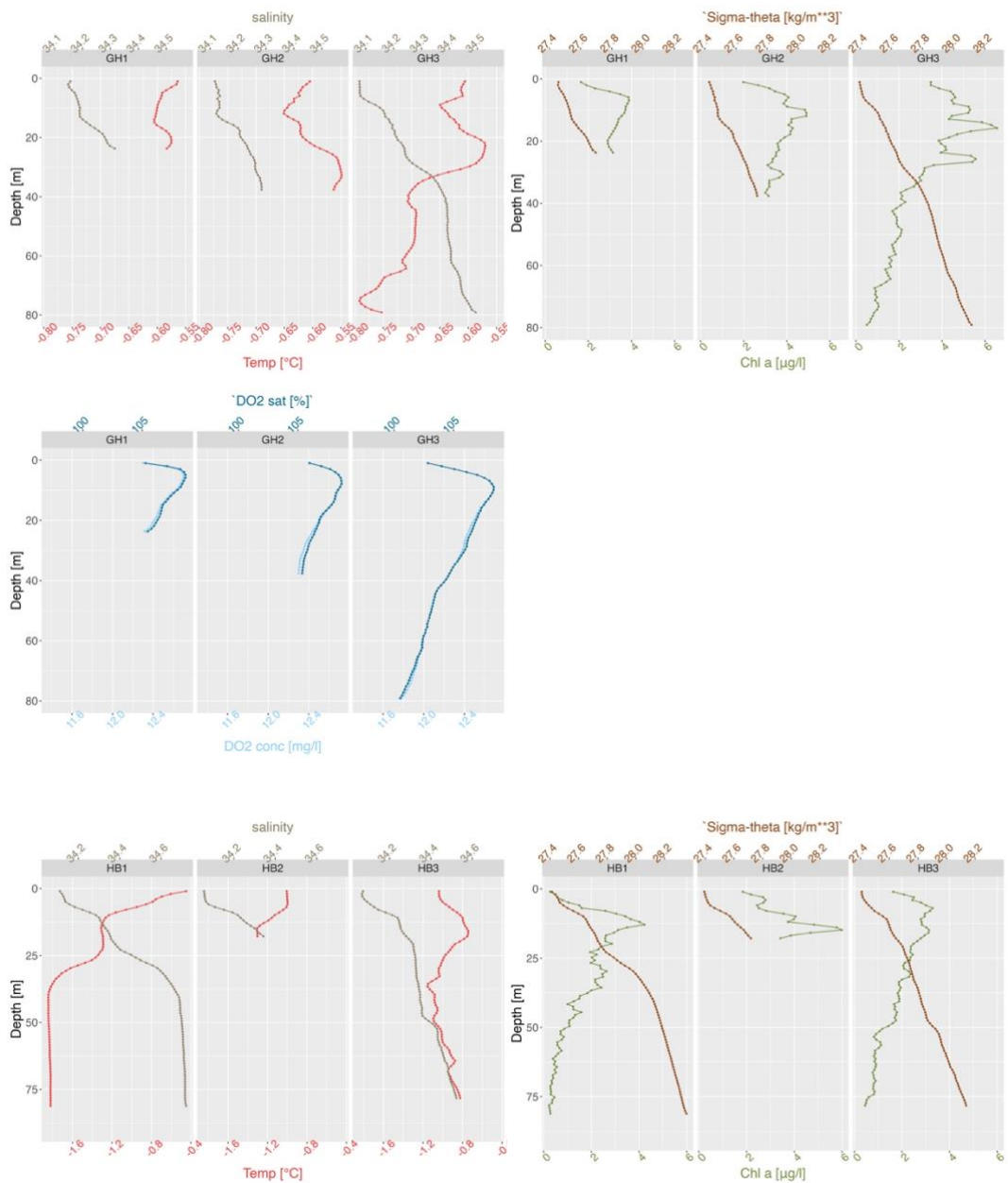


Supplementary Figures



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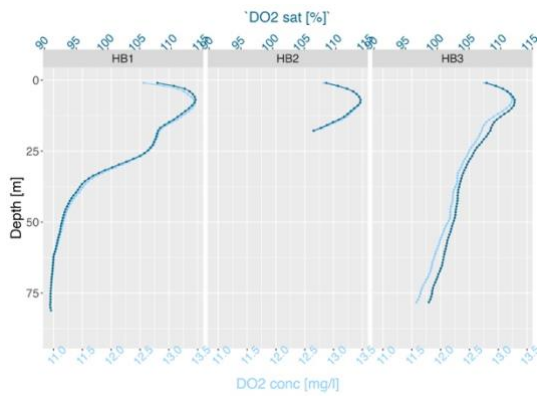
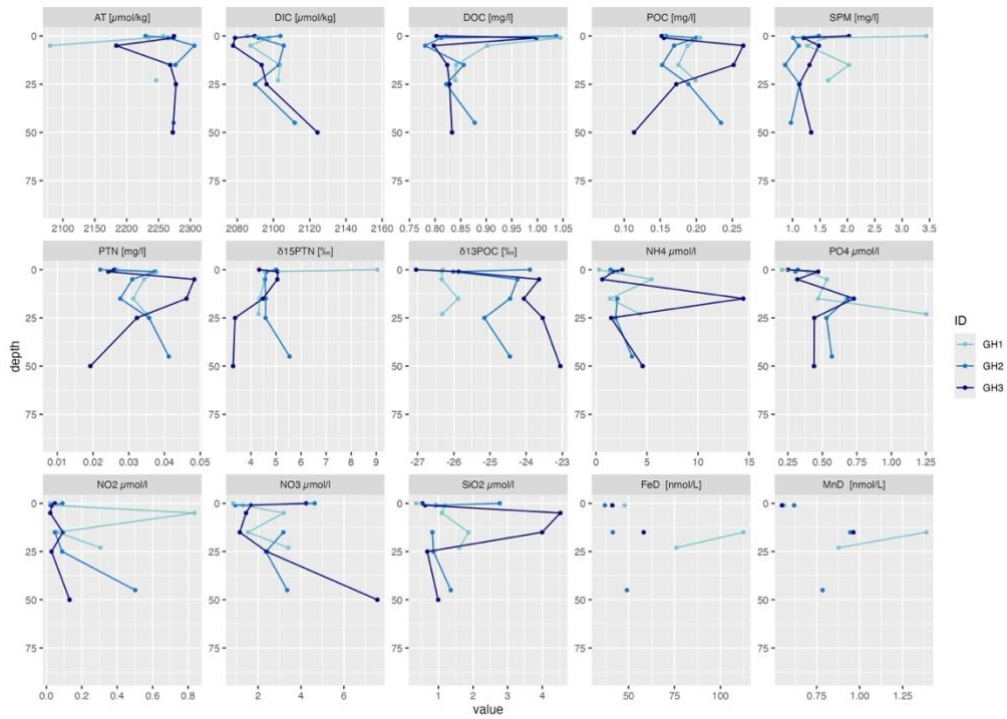
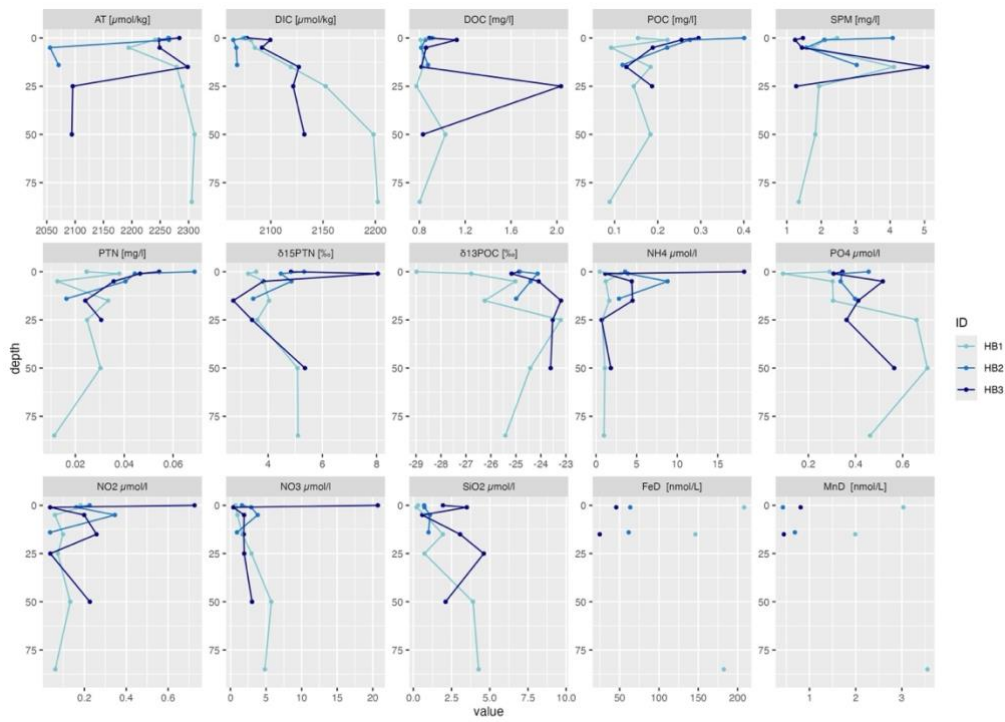


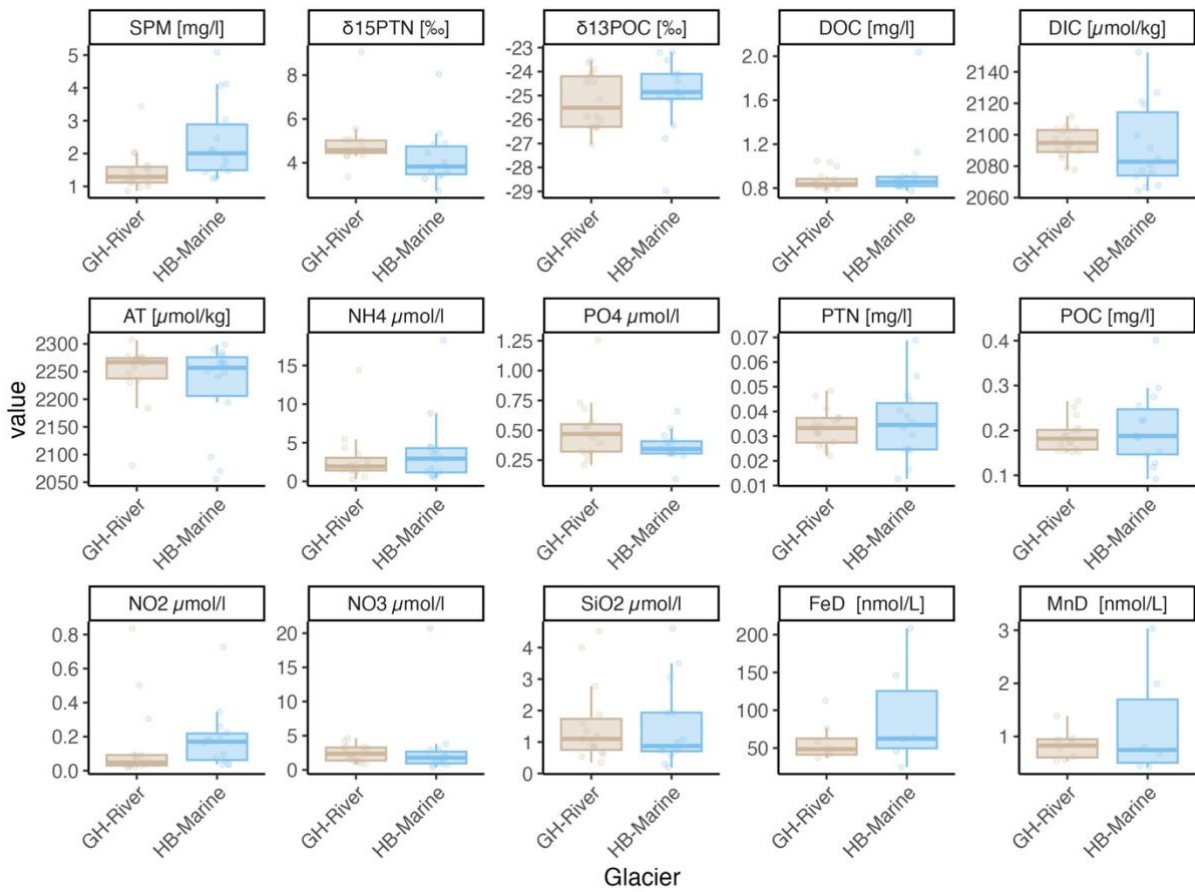
Fig. S1. Vertical profiles of temperature, salinity, density, chlorophyll concentrations, oxygen concentration & saturation, and two types of particle fluxes at stations in Gåshamna (GH) and near Hanbreen (HB) in May 2023.





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Fig. S2. Vertical profiles of biogeochemical properties in Goshamna (GH) and near Hanbreen (HB) in May 2023.

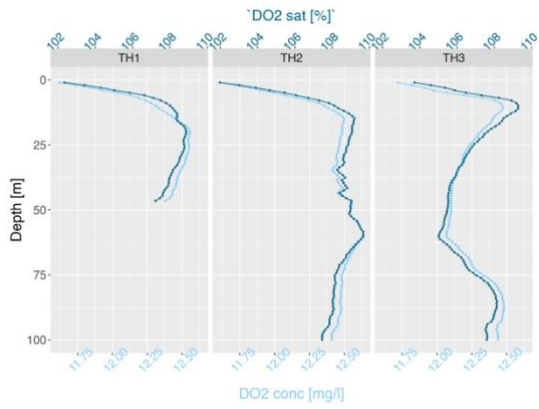
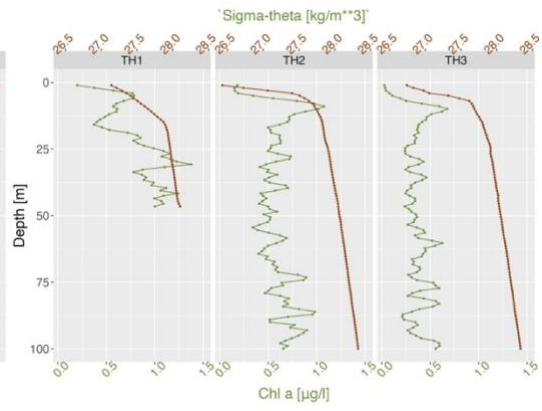
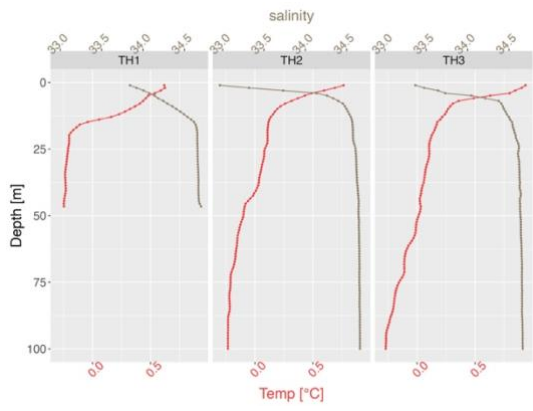


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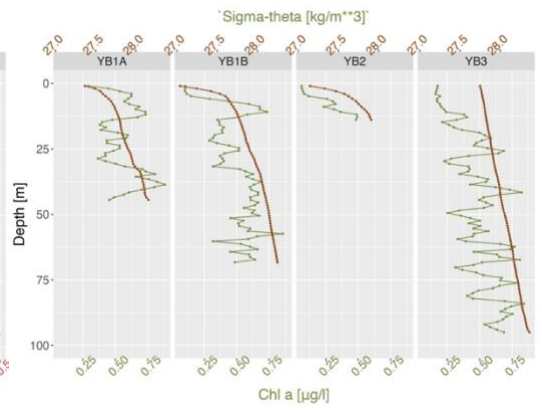
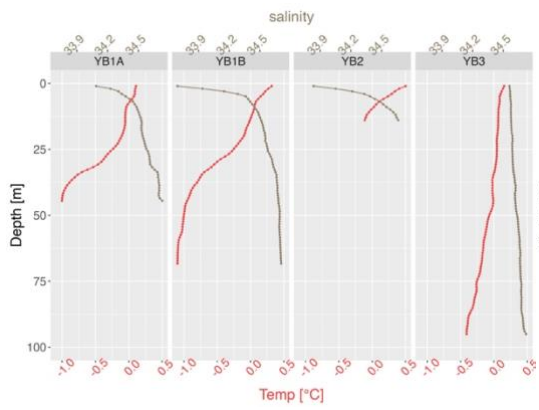
Fig. S3. Comparison of biogeochemical properties between Land-based (GH) and Marine-terminating (H) in the upper 50-m layer in Hornsund in May 2023.

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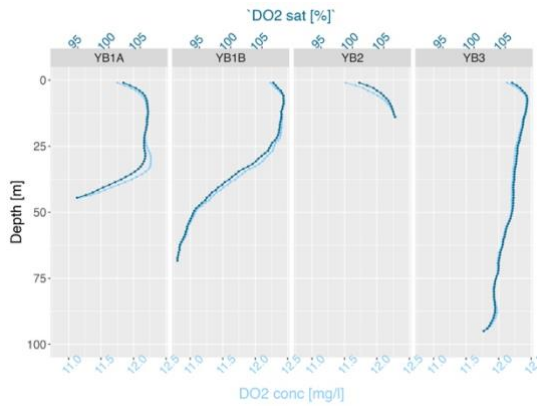
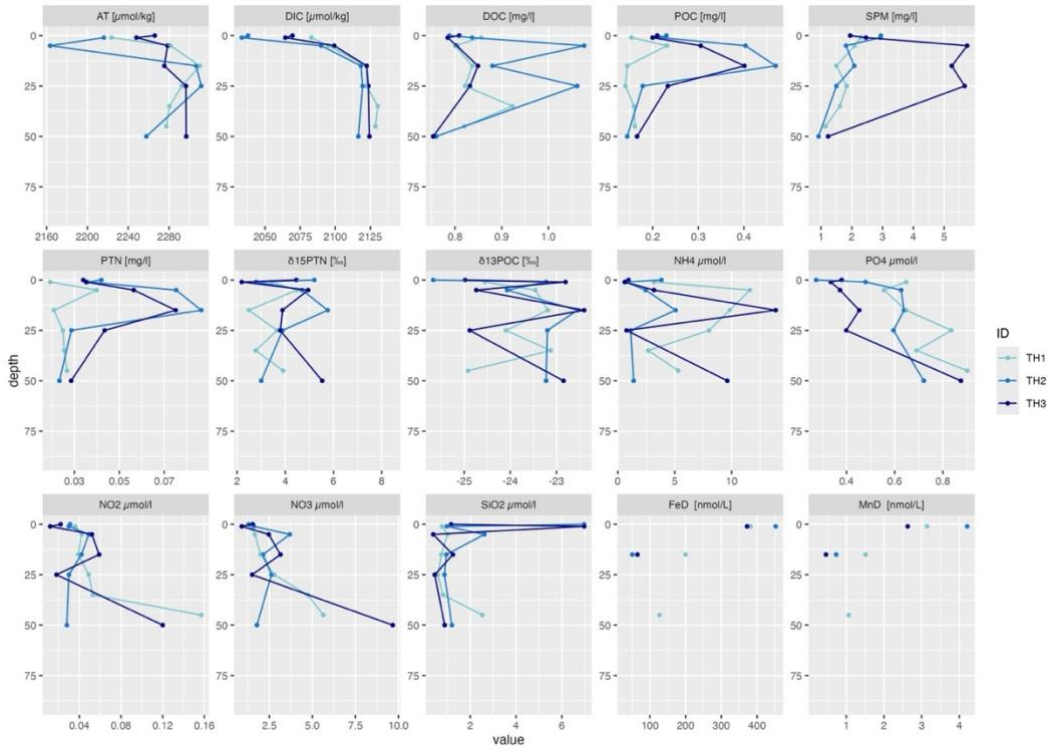


Fig. S4. Vertical profiles of temperature, salinity, density, chlorophyll concentrations, oxygen concentration & saturation, and two types of particle fluxes at stations in Tryghamna (TH) and Yberbukta (YB) in May 2023.

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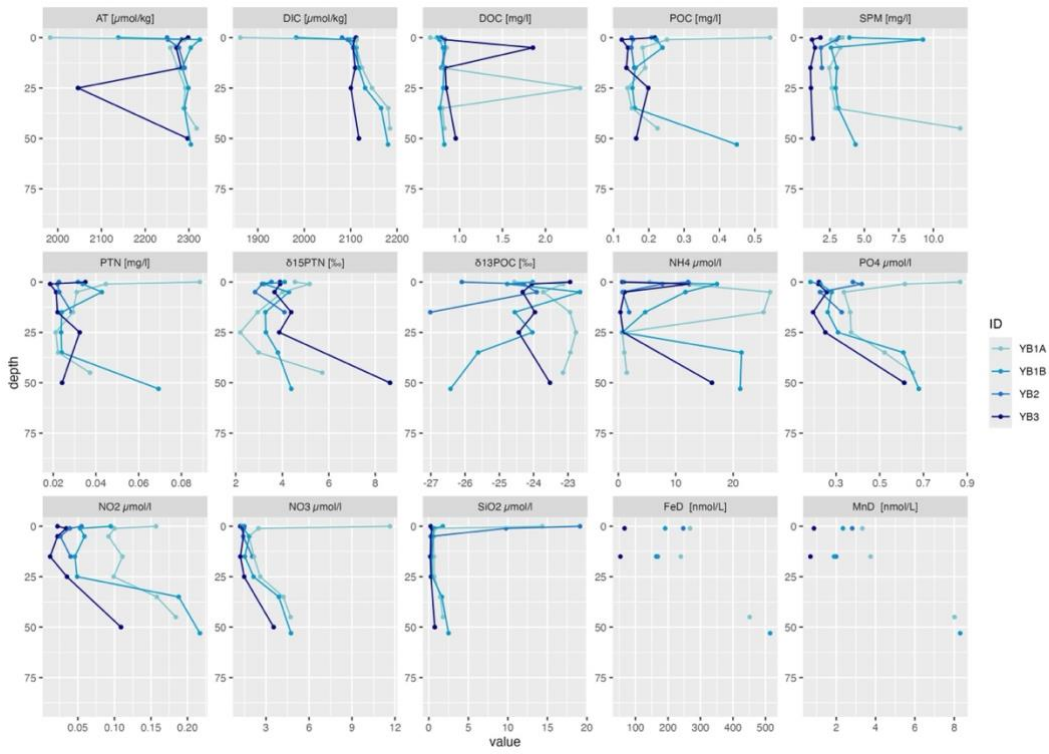


Fig. S5. Vertical profiles of biogeochemical properties in Goshamna (GH) and near Hanbreen (HB) in May 2023.

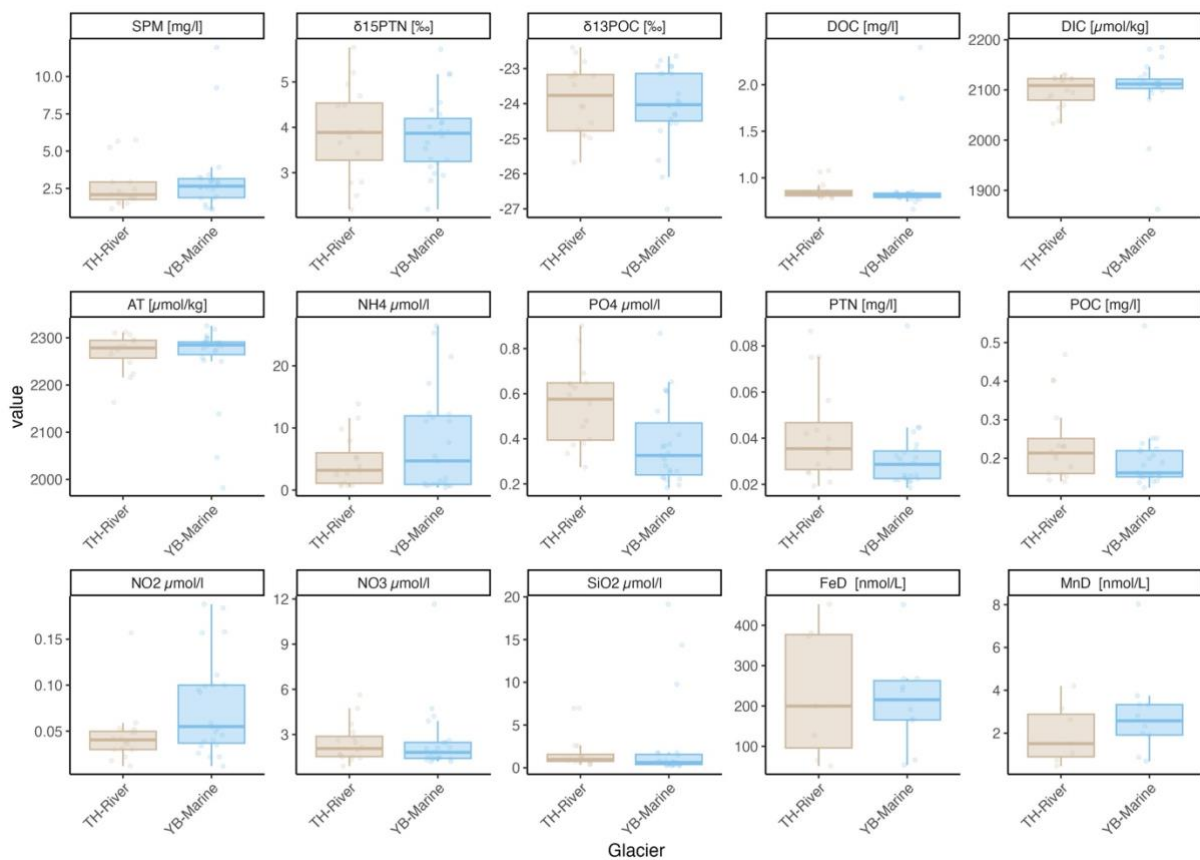
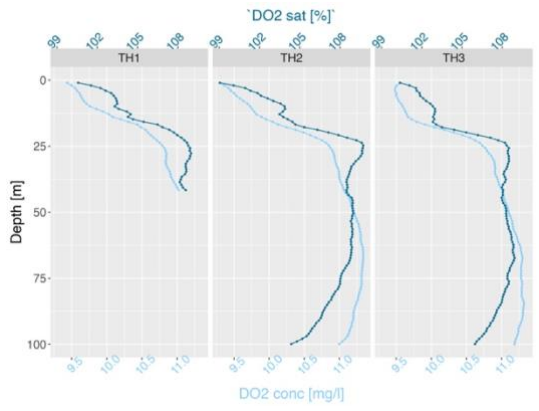
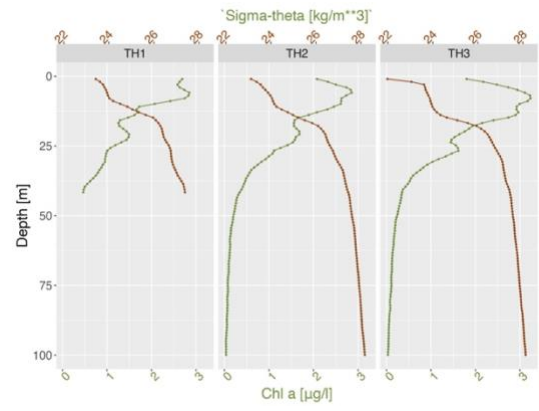
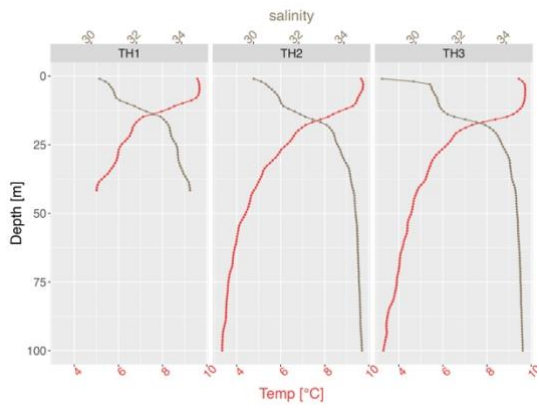


Fig. S6. Comparison of biogeochemical properties between Land-based (TH) and Marine-terminating (YB) in the upper 50-m layer in Isfjorden in May 2023.



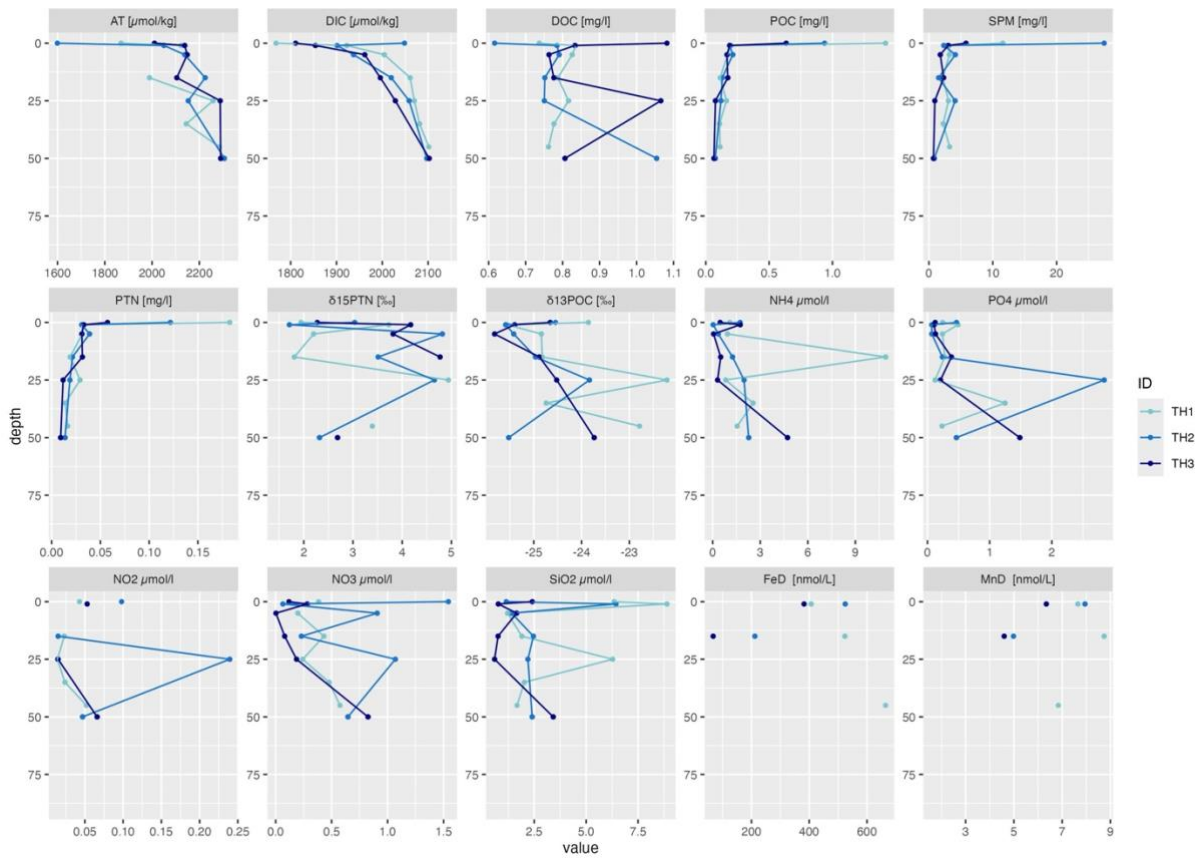


Fig. S7. Vertical profiles of temperature, salinity, density, chlorophyll concentrations, oxygen concentration & saturation, and two types of particle fluxes, as well as of biogeochemical properties at stations in Tryghamna (TH) in August 2023.

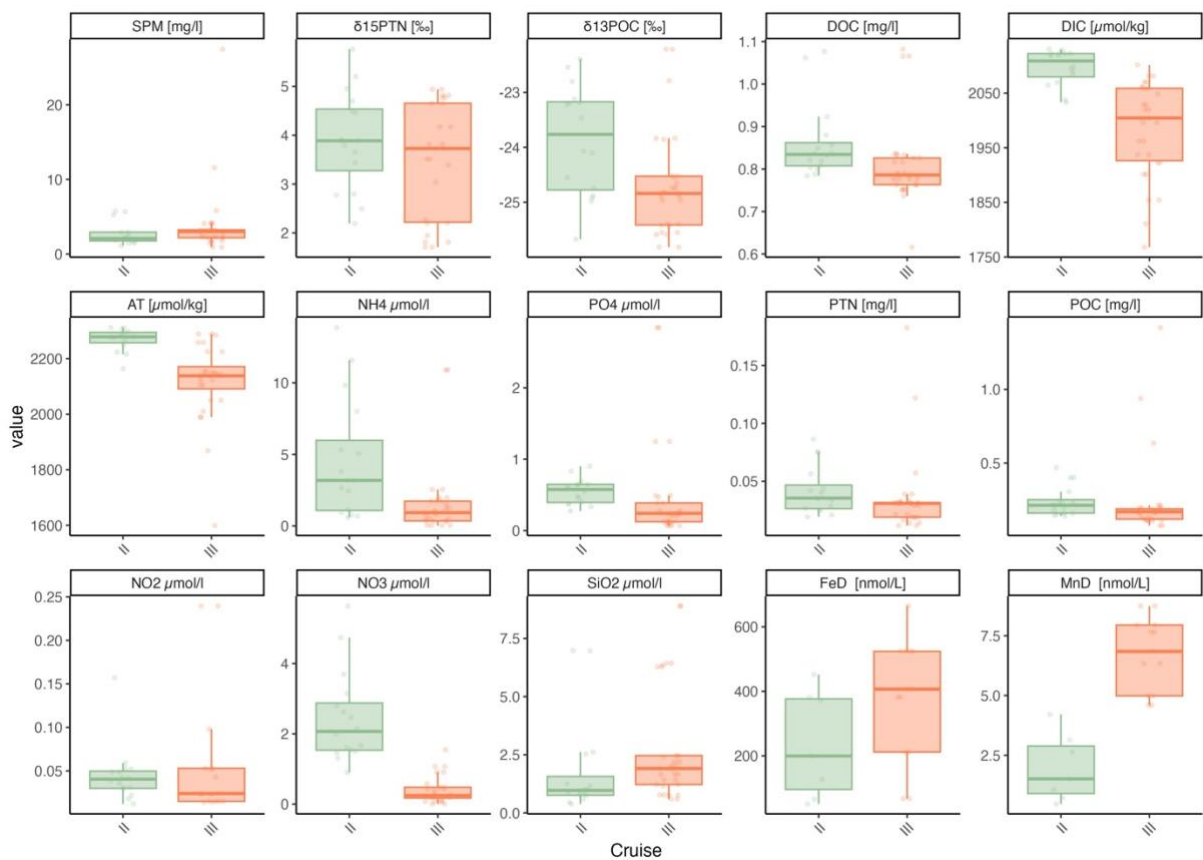
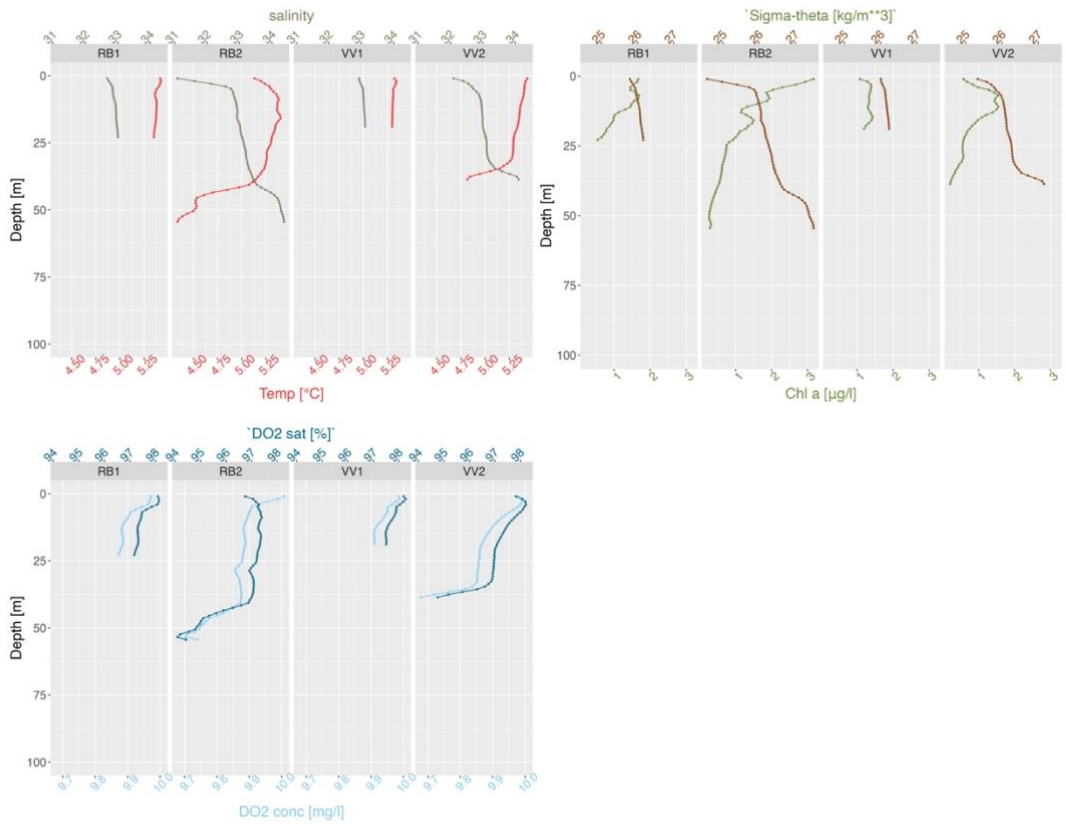


Fig. S8. Comparison of biogeochemical properties between Land-based (TH) impact of glacier in the upper 50-m layer in Isfjorden between May 2023 (II) and August 2023 (III).

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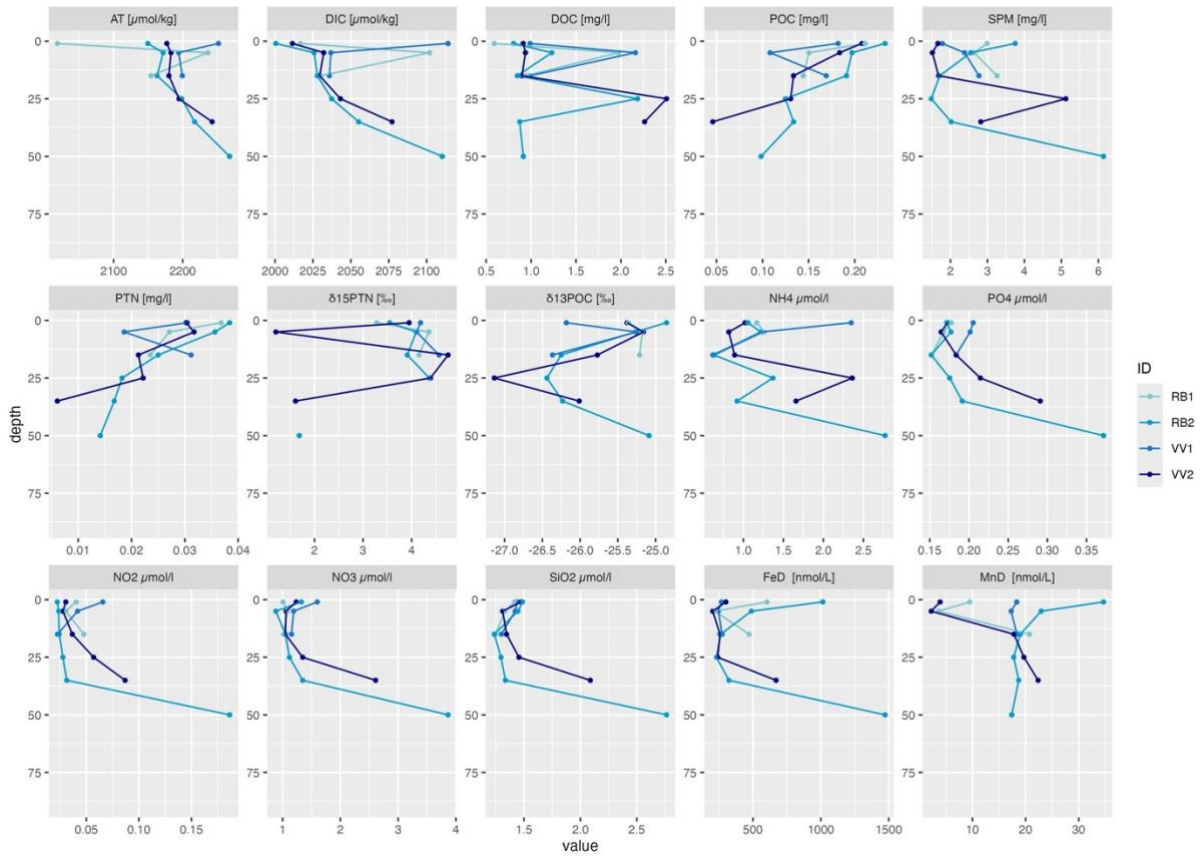
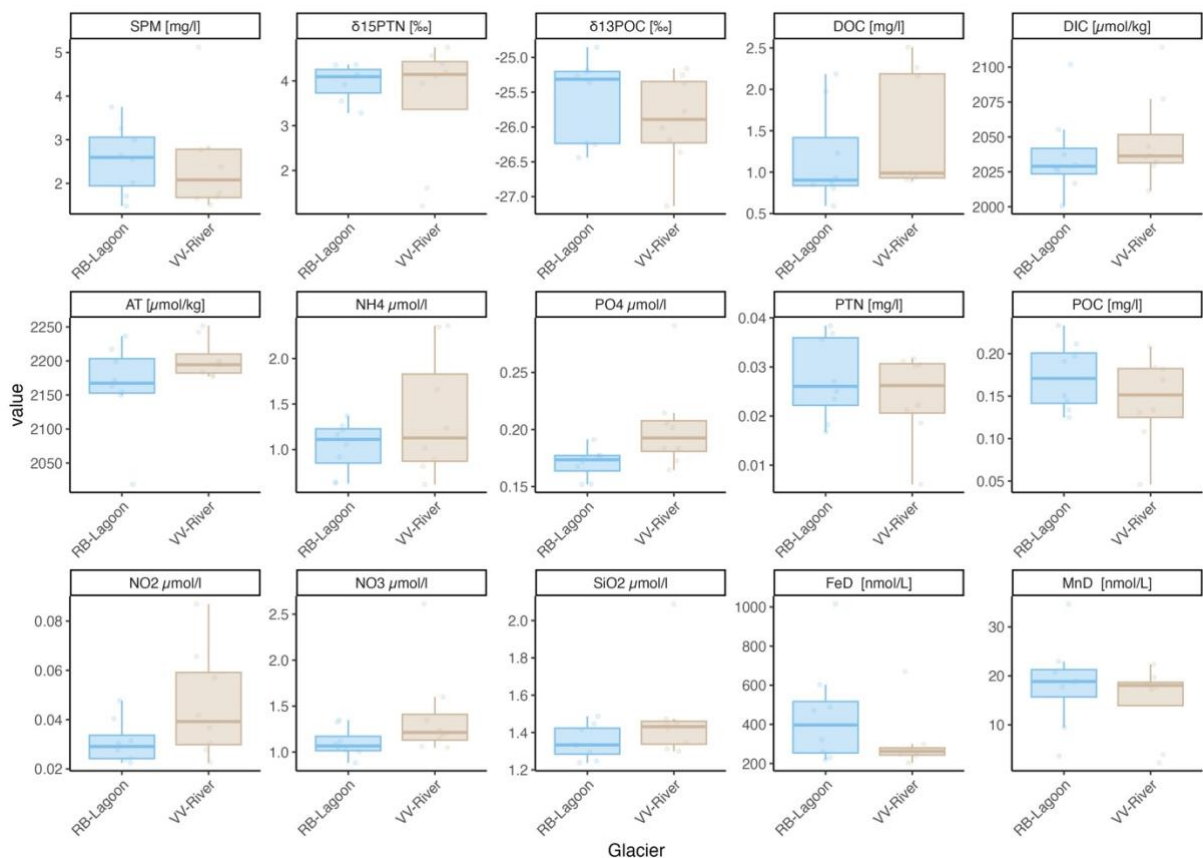


Fig. S9. Vertical profiles of temperature, salinity, density, chlorophyll concentrations, oxygen concentration & saturation, and two types of particle fluxes, as well as of biogeochemical properties at stations in Tryghamna (TH) in August.



70 Fig. S10. Comparison of biogeochemical properties between Lagoon-based (RB) and Land-based (VV) glaciers in the upper 50-m layer in Recherchefjorden in August.

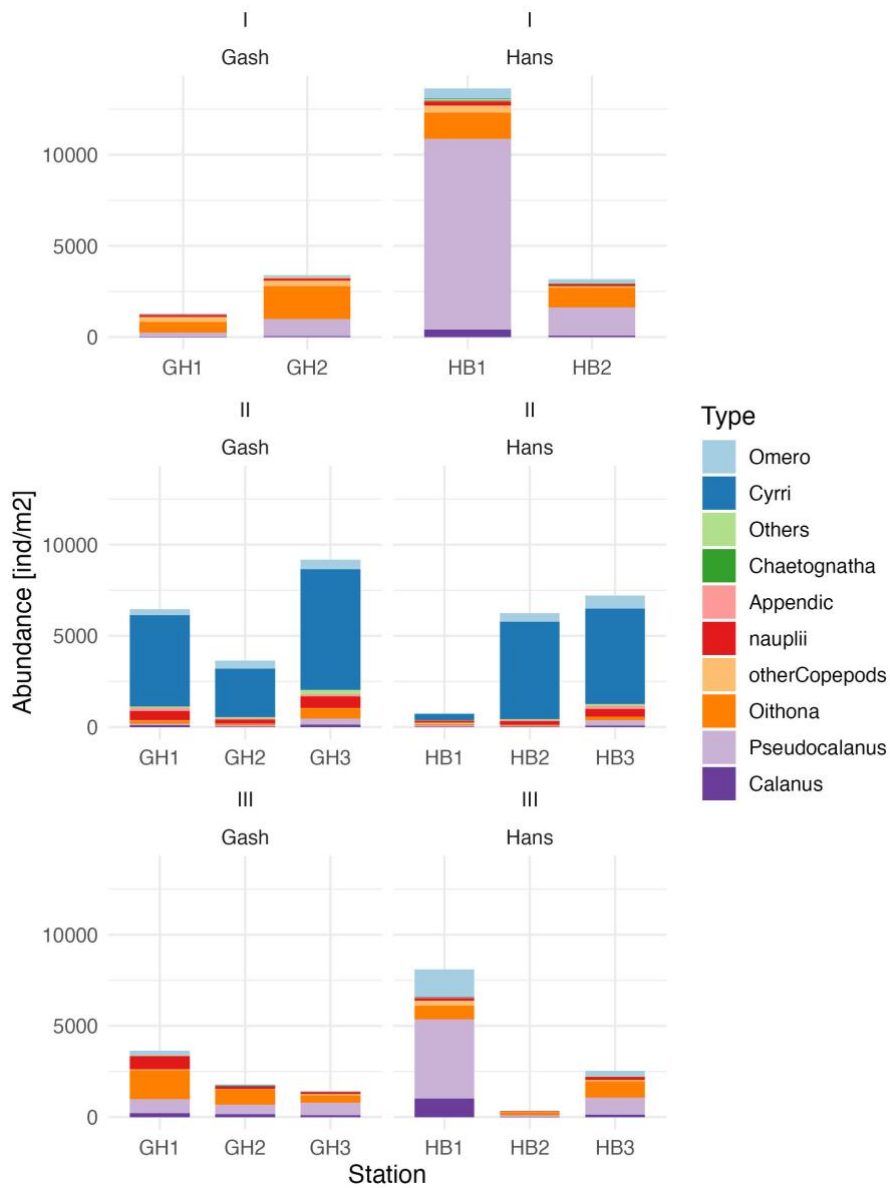


Fig. S11. Zooplankton composition across 3 cruises between Gåshamna (Land-based) and Hansbreen (Marine-terminating)