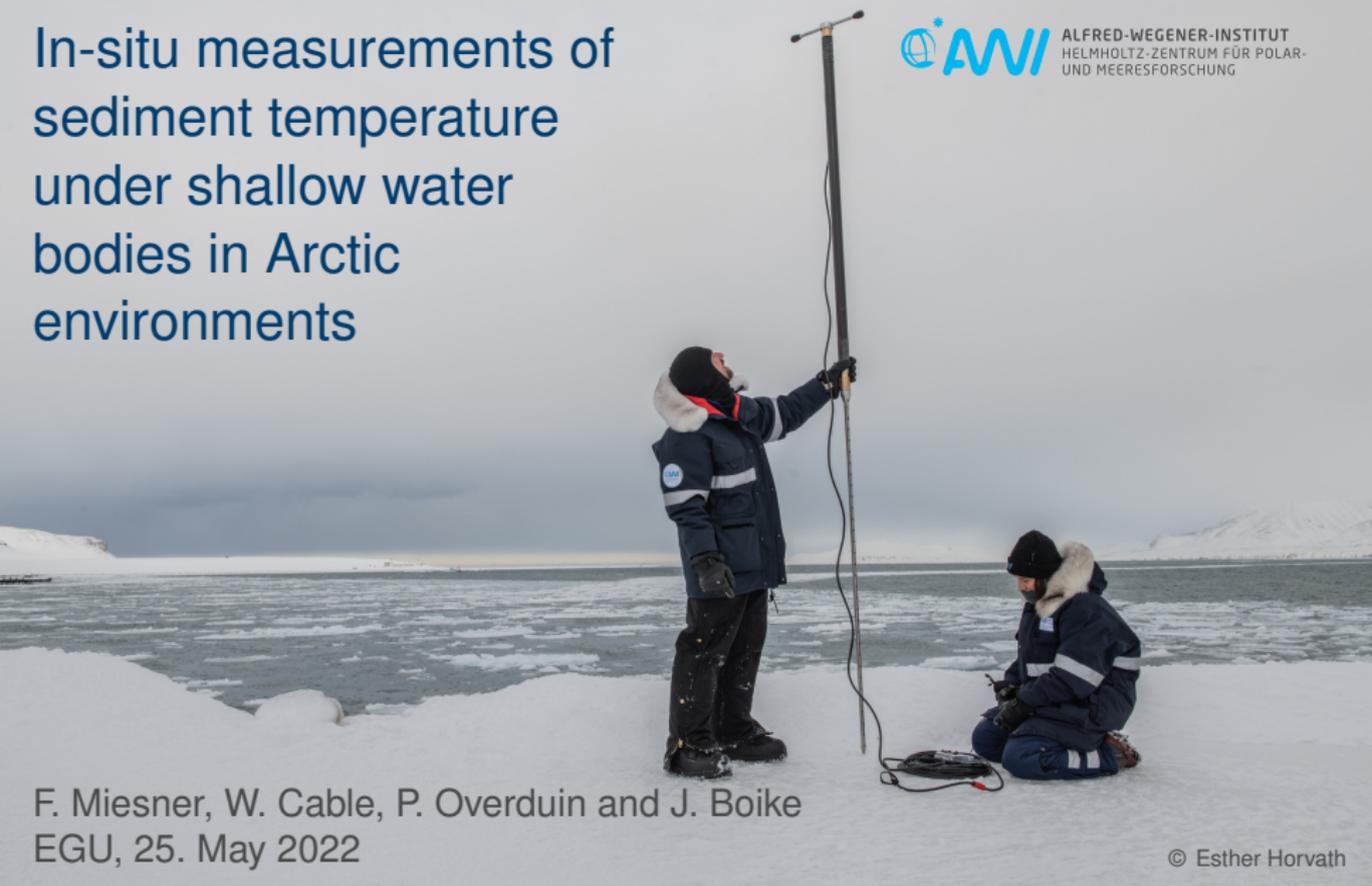


In-situ measurements of sediment temperature under shallow water bodies in Arctic environments



ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG



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EGU, 25. May 2022

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Measuring Temperature Profiles



- ▶ 30 sensors with 5cm spacing
- ▶ 0.01K accuracy
- ▶ equilibration within this margin in 7min
- ▶ lightweight extensions

Deployment is fun!



from the ice

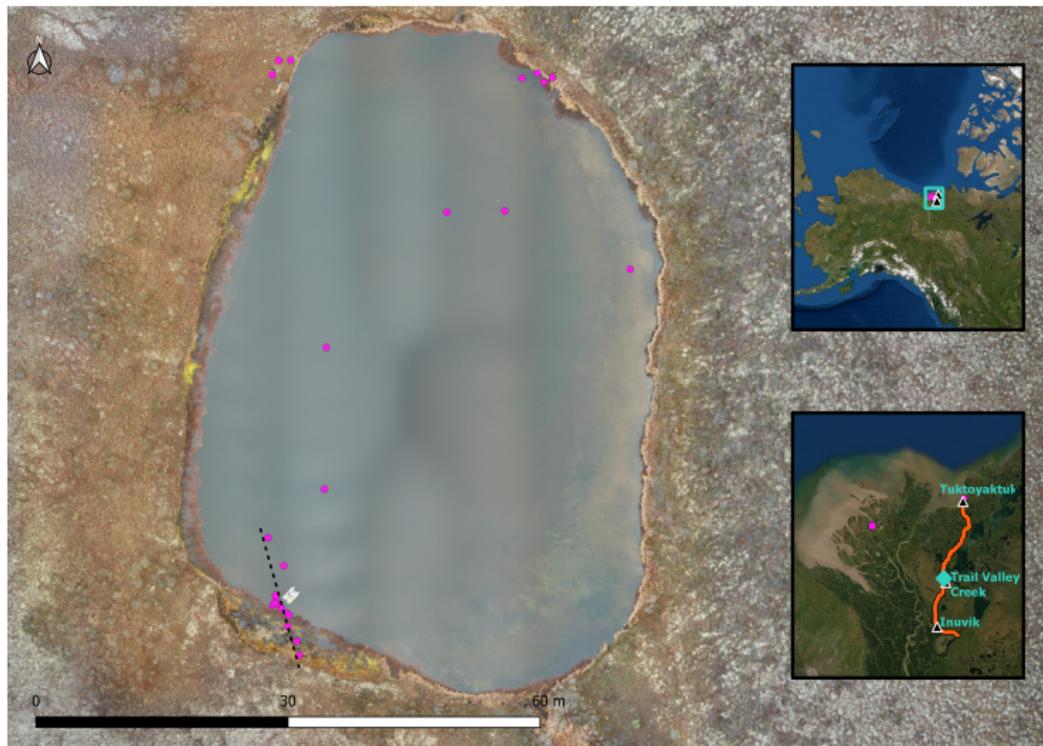


standing in the water

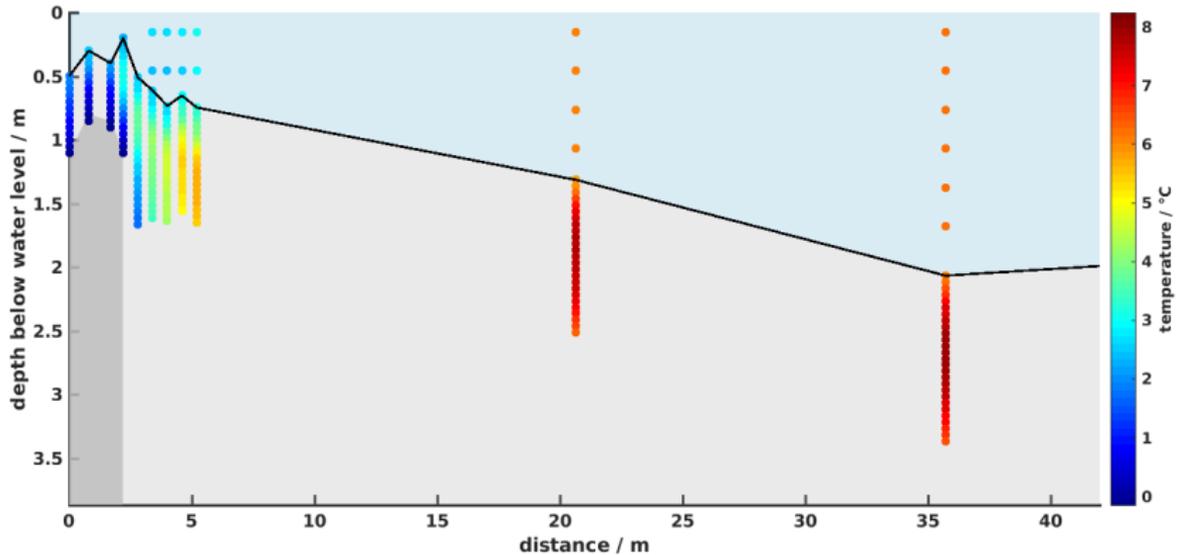


from a boat

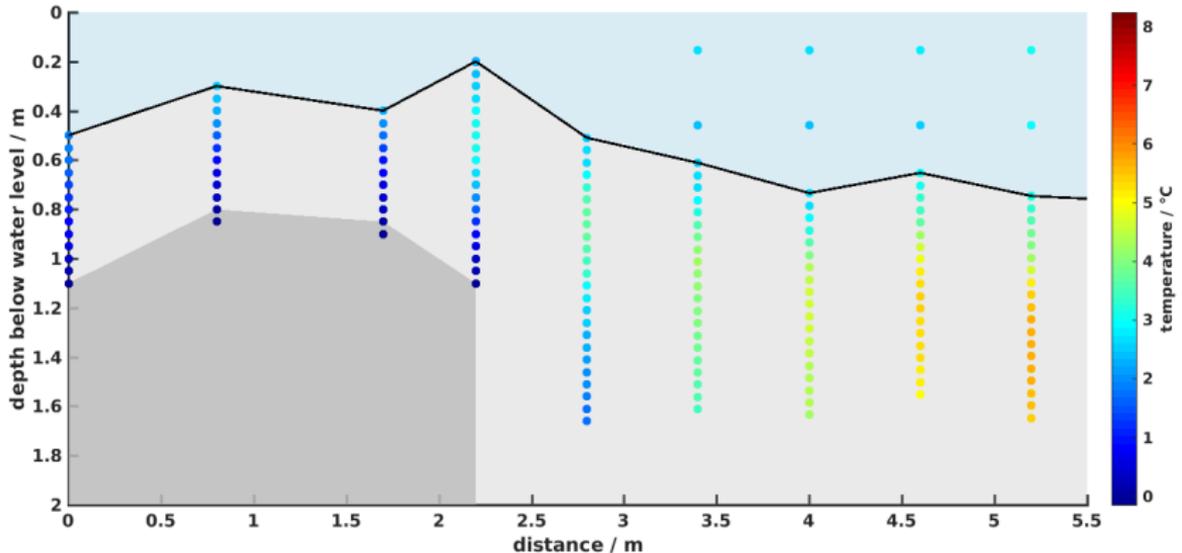
Data Example from NW Canada



Data Example from NW Canda

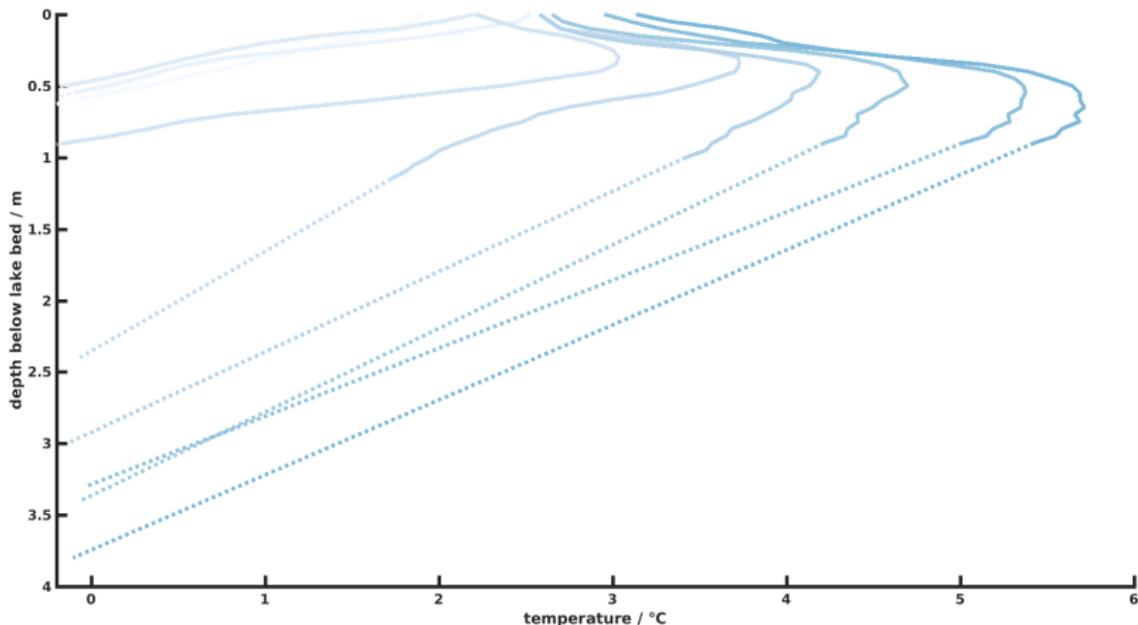


Data Example from NW Canada



Hit permafrost in the shallow part

Plans for the Future



What can the data tell us about water temperatures and the permafrost table?

Thank you for your attention!

