Supplement of

Organic Carbon Characteristics in Ice-rich Permafrost in Alas and Yedoma Deposits, Central Yakutia, Siberia

Torben Windirsch¹, Guido Grosse¹, Mathias Ulrich³, Lutz Schirrmeister¹, Alexander N. Fedorov⁴,⁵, Pavel Ya. Konstantinov⁴, Matthias Fuchs¹, Loeka L. Jongejans¹,², Juliane Wolter¹, Thomas Opel¹, and Jens Strauss¹

¹Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Telegrafenberg A45, 14473 Potsdam, Germany
²University of Potsdam, Institute of Geosciences, Karl-Liebknecht-Straße 24-25, 14476 Potsdam, Germany
³Leipzig University, Institute for Geography, Johannisallee 19a, 04103 Leipzig, Germany
⁴Melnikov Permafrost Institute, SB RAS, 36 Merzlotnaya str., Yakutsk, Republic of Sakha, Russia, 677010
⁵BEST International Centre, North-Eastern Federal University, 58 Belinsky str., Yakutsk, Republic of Sakha, Russia, 677027

Correspondence to: Torben Windirsch (torben.windirsch@awi.de)

- Figure S1 – Digital mapping of the Yukechi Alas landscape
- Figure S2 – Age-depth models for YED1 and Alas1
- Figure S3 – C/N values of YED1 and Alas1 plotted over δ¹³C
- Figure S4 – Sediment triangle after Shepard
- Figure S5 – Grain size distribution for the YED1 core
- Figure S6 – Grain size distribution for the Alas1 core
Figure S1 - Digital mapping of the Yukechi Alas landscape (red); lakes were digitalized in blue, Alas basins were digitalized in green; sampling locations Alas1 and YED1 marked in yellow; the 765 m distance between YED1 and Alas1 is marked by a red dotted line; satellite image taken from Google Earth.
Figure S2 - Age-depth model for YED1 and Alas1; radiocarbon ages in blue with uncertainties; median in red; model range indicated by grey dotted lines; created with the Bacon package in the R environment.
Figure S3 - C/N values of YED1 (triangles) and Alas1 (dots) plotted over \( \delta^{13}C \) values.
Figure S4 - Sediment triangle after Shepard showing the grain size composition.
Figure S5 - Grain size distribution for the YED1 core; Y1 to Y4 indicate the different stratigraphical units; core unit Y2 did not hold enough sediment.
Figure S6 - Grain size distribution for the Alas1 core; A1 to A4 mark the different stratigraphic units.