



Late Quaternary climate and environmental changes in a permafrost section near Igarka, Northern Siberia based on leaf wax analyses

Imke Schaefer (1,2), Lea Schweri (1), Jana Zech (1), Nikita Tananaev (3), Roland Zech (1,2)

(1) University of Bern, Institute of Geography, Bern, Switzerland, (2) University of Bern, Oeschger Centre for Climate Change Research, Bern, Switzerland, (3) Melnikov Permafrost Institute, Igarka Geocryology Laboratory, Yakutsk, Russia

Leaf wax biomarkers, such as long chain n-alkanes and n-alkanoic acids, and their carbon isotopic composition are a promising tool for reconstructing past climate and environmental changes and gain more and more attention in paleoresearch. Here we present the results of leaf wax analyses from a permafrost outcrop at the left banks of the Yenisei River near the city of Igarka, Northern Russia. Fluvio-glacial sediments are exposed in the lower part of the outcrop and probably date back to ~60 ka. The upper part consist of aeolian sediments deposited since, overprinted by various pedogenetic processes. First results indicate a continuous contribution of deciduous trees to the vegetation during the last glacial. Compound specific deuterium and radiocarbon analyses are in progress in order to investigate changes in paleoclimate and to establish a robust chronology.