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

HELMHOLTZ GEMEINSCHAFT

Quaternary Geology & Sedimentary Palaeoclimate Records (Land, Lakes, and Ocean)

Sedimentary deposits from terrestrial environments (lakes, moraines, dunes, loess, and permafrost) and the polar oceans represent unique palaeoclimate archives used for the reconstruction of the late Pleistocene to Holocene environmental history of the periglacial and offshore realm. The inference of palaeoenvironmental scenarios is based on sedimentological, geochemical, and micropalaeontological (diatoms, chironomids, ostracods, pollen) data. Study areas are:

- Palaeoenvironment Verkhoyansk Mountains, Eastern Siberia
- Lake Billyakh, Verkhoyansk Mountains, Eastern Siberia
- Thermokarst Lakes of Central Yakutia, Eastern Siberia
- Lakes of Northern Yakutia, Eastern Siberia
- Lake Records on Kamchatka, Far East Russia
- Lake Records of the Altay Region, Southern Siberia/Mongolia
- Lake Donggi Cona, Tibetan Plateau
- Gaxun-Nur Basin, Central China
- Amery Oasis, East Antarctica
- Prydz Bay, East Antarctica

The above picture gives an impression of the field campaign to Lake Billyakh in the Verkhoyansk Mountains (Yakutia) that took place in spring 2005. The ice-based tripod, equipped with a piston corer, was used for the recovery of up to 10 metre long lacustrine sediment cores from the lake bottom.
The studies contribute to the AWI research programme PACES, Topic 1, WP1, "Lessons from the Past - Past Polar Climate and Interhemispheric Coupling".

Working Group

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• Dr. Larisa Nazarova, Chironomids
• Dr. Hanno Meyer, Stable Isotopes
• Conrad Copsch, Engineer, Seismics/Geophysics
• Gerald Müller, Field Logistics

Former Group Members

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• Dr. Ulrike Hoff, PhD finished at University Potsdam, 2010 (Kamchatka)
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