

ICDP Workshop on Scientific Drilling of Lake Nam Co (Tibetan Plateau)



Beijing, China, 22-24 May 2018

Lake Nam Co represents one of the largest and deepest lakes (100 m) on the Tibetan Plateau that supplies water to one third of the world's population. Due to its location, paleoclimate proxies reflect the spatial and temporal development of large-scale atmospheric circulation systems. Multiproxy studies on a 10.4 m long reference core provided a high-resolution paleoenvironmental record covering the past 24 cal ka BP with proxies that have been validated by extensive modern process studies. A comprehensive set of pre-site survey seismic data show an infill of >800 m of well-layered undisturbed sediments in the central part of the lake, likely spanning several glacial/interglacial cycles. Sediment accumulation rates measured on the reference core and seismostratigraphic investigations suggest an age of the lake formation of >1 Mio years.

The Tibetan Plateau is also characterized by a high degree of endemism of organisms that are dependent on continuously existing water bodies. Nam Co likely served as a dispersal center for these organisms, as most other lakes desiccated during dry glacial periods of the Cenozoic. Nam Co appears to be a first class example for studying the link between geological and biological evolution in highly isolated Tibetan Plateau ecosystems including the deep biosphere over long time scales.

A continuous, high-resolution, record for these long time scales from Nam Co can be recovered by drilling to study sediment budget changes under varying climatic and tectonic settings, and contribute to a better understanding of the Quaternary geomagnetic field.

Members of the international scientific community interested in the planning of and participating in the research project, are invited to apply for participation in the workshop. It will be held in Beijing, China, from 22-24 May 2018 to further develop the project's scientific goals and to discuss technical and logistic issues for a full proposal to ICDP.

Interested parties are requested to submit their application by 15 January 2018 to T. Haberzettl (torsten.haberzettl@uni-jena.de) and Liping Zhu (lpzhu@itpcas.ac.cn) with contact details, a summary of research interests and expertise, and a brief description of the intended project contribution. Preference will be given to scientists from ICDP member countries whose expertise complements that of current consortium members. We particularly aim to expand the research consortium with additional expertise in geochronology and outreach. Successful applicants will be notified in early March.