

# Holocene history of Arctic lakes

## Abstract

Palaeolimnology in the Arctic has achieved a considerable progress in the last decades. The Arctic has changed markedly since the Last Glacial and glacier retreats caused formation of a great number of diverse lake types. Lakes of glacial origin, thermokarst lakes, fluvial lakes and lakes on raised beaches occur most often here. Palaeolimnological methods applied to the high latitude areas are used for the study of the history of individual lakes. Methods of correlation of sedimentary cores and basic interpretation of proxy records such as magnetic susceptibility, diatom biostratigraphy and content of carbon and sulphur were applied on sediments of Garmaksla Lake, Svalbard Archipelago. Climatic and ecological shifts including the Little Ice Age termination and recent warming were registered in proxy values.

**Keywords:** lakes, palaeolimnology, palaeoclimatology, environmental changes, Holocene, Arctic