



Environmental changes in the Wehntal Valley in Northern Switzerland

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Quaternary deposits within the glacially overdeepened trough of the Wehntal Valley in Northern Switzerland, record glacial and interglacial conditions from the Beringen Glaciation (MIS 6) through to the Holocene. The area is well known for the Niederweningen site, with its rich Late Pleistocene mammal remains found in a buried peat deposit. In addition to this famous "mammoth peat", more deeply buried peat layers, part of which have previously been attributed to the final part of the Last Interglacial, also include a wealth of environmental data.

Here, we present the first results of an investigation, including sedimentology, geochemistry, palaeobotany (pollen, wood and plant macroremains), malacology, and luminescence dating, of two 16 meter drill cores taken close to the Niederweningen site. The analysed sedimentary successions in both cores show a transition from a series of laminated silts typical of a lake environment to a several meter-thick succession of well-developed organic silts, tufaceous silts and peat layers characteristic of near shore and shore conditions. The presence of dropstones and a lack of organic material in the lower part of the lake sediments indicate glacial conditions, while the peat-rich succession formed during a relatively warm period followed by a time of fluctuating climate. Preliminary results indicate that the organic-rich units represent the Last Interglacial, followed by warm interstadials during the early part of the Last Glacial period. The "mammoth peat" appears to be missing from the studied cores. Erosive surfaces within the peaty succession impede a straightforward interpretation.