

ABSTRACT

Reconstruction of palaeoecological conditions during infilling process of former lakes using macroremain analysis

Natural lakes are rare phenomenon within extraglacial area of Central Europe. Their origin we can find in the ending of Pleistocene period. They were established as a result of the intensive geomorphological processes during the time of the Late Glacial.

Another type of naturally evolved water reservoirs represent oxbow lakes. Their formation is connected with climatically stable periods with a balance aquatic conditions. The Meanders are quite common in the area of Czech Republic. They filled in by organic and silt sediment and became extinct during the Holocene. This organic matter in lake sediments represents a significant source of information about changing landscape.

Aim of diploma thesis: 1) To describe long-term vegetation dynamic and processes which lead to extinction of the water bodies using macroremain analysis. 2) Try to find some secondary macroremain-indicators of an impact of hunter-gatherer population. 3) To compare results of macroremain and pollen analysis.

Location: 1. former Lake Švarcenberk is situated in the Třeboň basin (Southern Bohemia) 2. Palaeomeander Chrást is located in the valley of the middle Labe river (Central Bohemia).

Methods: Three profiles (two have been taken from sediments of former Lake Švarcenberk; one from palaeomeander Chrást) were studied by mean of macroremain analysis and by comparing with the results of pollen analysis from the same profiles.

Results: 1) Records of the two littoral sections from the lake Švarcenberk are of early Holocene age. The record from the oxbow lake is of Late Glacial origin while the Holocene record is lacking there. Considering it is hardly possible to compare the succession of both lake and palaeomeander. The forces which drew the succession of the palaeomeander had mainly abiotic character, while the development of the Lake Švarcenberk was influenced by autogenic succession. 2) It is possible to evidence Mesolithic habitation near the lake by macroremain analysis, but settlement in the middle Labe area is rather hardly documented by this method. 3) The main results based on macroremain and pollen analyses are similar, they differ in details and it is necessary to use both of these analyses.

Keywords: palaeoecology, macroremain analysis, Late Glacial, Holocene, infilled lakes, Lake Švarcenberk, palaeochannels, middle Elbe region