

## ABSTRACT

Diatoms are unicellular phototrophic organisms, whose siliceous frustules preserved in sediment have broad palaeolimnological application. Sediments of former Komořany Lake count among the richest Czech sediments in quaternary diatoms. This already destroyed locality is examined in search and practical part of work.

The search part contains characterization of diatoms and locality Komořany Lake. Diatoms are described in paleontological point of view, that is why the main attention is paid to morphology of frustule, their ecology and application in geological sciences. However, for complete image of this various group, the new pieces of knowledge about their taxonomy or evolution are not overlooked. The root of the work is summarization of accessible literature about Komořany Lake with special attention to research of diatoms.

In practical part diatom valves were isolated from samples of sediment from profile PK-1-W, 18 long-lived sections were prepared and 6 of them were used for taxonomical determination. The 47 taxons of diatoms were found, 7 of them had not been included in work of Řeháková (1986). The synonymy of taxons are created in comparison with results of Řeháková (1986). From taken pictures are created 6 taxonomical plates.

Key words: diatoms, *Bacillariophyceae*, Komořany Lake, Quaternary, Holocene, paleolimnology