

## ABSTRACT

The aim of this thesis is to present an overview of Miocene fish fauna of the lacustrine sediments in the Cheb and Sokolov Basins, geological settings of this area, and fish associations in individual biozones.

Sediments of Cheb and Sokolov Basins were deposited during time interval from Eocene until Miocene in the subtropical zone of the North hemisphere. Volcanic and post-volcanic activities of the Ohárecký rift influenced development of these basins. It's possible define two time sections within development of these basins: early and later; both of them provide rich record of fossil fishes.

For the early period of the development is typical smaller range of the lake and its shallow depth. The relicts of this stage are limited to Cheb Basin mainly. Fish fossil record is limited, with three species only: *Esox* sp., *Palaeotınca egeriana* and *Leuciscus (Palaeoleuciscus) socoloviensis*. Low fish diversity could have been affected by poor living conditions or lower taxonomic diversity in general during this time.

The later developmental period was much longer. The lake was much bigger - it spread to Sokolov Basin also. The fish fauna diversity is much higher, including taxons *Paleotınca egeriana*, *Leuciscus (Palaeoleuciscus) socoloviensis*, *Aphanius chebianus*, *Paralebias egeranus* and *Gobius* sp.

It is possible to say generally that structure of the fish assemblages were affected by the flow rate of the lake, contamination of the water by hydrogen sulphide, weather conditions (with special effects of the storms), and salinity of the water (which was affected by volcano activity and mineral streams nearby to the volcanic centre). For completeness it is necessary also mentioned the drainage of the lake.