

Abstract

This thesis is a complex limnological study of flooded sand pits in the Třeboň Biosphere Reserve. Three localities of different age and of different banks and surroundings character were chosen. Morphometrical, fyzical, chemical and hydrobiological characteristics of water were examined. The results of individual sand pits were compared.

Flooded sand pits are relatively deep lakes with wide water-table area. The maximum depth was found in the locality Františkov, while the locality Halámky-jih took the widest water-table area. From view of fyzical characteristics there exist relatively great differences between sand pits, particularly in the vertical profile of the temperature and pH. From view of chemical characteristics the chosen localities are very similar, just in the potassium concentration some differences were marked. The concentration of nitrates was very low. The oxygen concentration was of typical continuance depending on the temperature and on the photosynthesis of water organisms. Common stagnant water organisms species range in sand pits. Numbers of species found in the sand pits relatively varied. The highest number of phytoplankton, zooplankton and makrozoobentos species was found in the oldest sand pit Františkov. Although the sand pits Jezero Veselí and Halámky-jih differ from each other by age, banks and surrounding characteristics, they do not differ markedly according to the diversity of species.

It is obvious that differently old sand pits differ from each other by number of species, but we can not claim that the main reason is the age. It seems that the exploitation in surroundings does not negatively influence the sand pit Halámky-jih and does not reduce its importance as a full-value ecosystem.