Abstract

Canyon shaped reservoirs are characteristic by specific environmental horizontal gradients, so they enable existence of several species of the *Daphnia longispina* complex in one water body. Due to preference of distinct environmental conditions *Daphnia* species occurre in the different localities. The aim of my thesis was to analyze detail taxonomical and clonal structure of *Daphnia longispina* group by ten microsatellite markers on longitudinal gradient and compare it between two consecutive seasons. Simultaneously I received newly discovered divergent mitochondrial lineage from Želivka reservoir. It was confirmed, that the distribution of species and their hybrids in water reservoir was non-concidental and the taxonomic spatial distribution is in two consecutive seasons relatively constant. On the contrary the spatial and temporal distribution of clones was very heterogeneous. Clonal diversity in the interspecific hybrids was lower than in the coexisting parental species. This finding supports the hypothesis, that there exist reproductive barriers between parental genomes. Most of the clones were substantively variable, but several clones that occurred in both seasons in similar localities were found. It is possible that some clones are able of overwintering in hypolimnion and in the spring recolonized similar localities.