

INFLUENCE OF TYPE OF SUBSTRATE AND WATER CHEMISTRY ON THE
STRUCTURE AND SUCCESSION OF PERIPHYTIC CILIATE COMMUNITIES IN
HYPERTROPHIC LAKE

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Abstract: The aims of the study was to establish whether differences exist between periphytic ciliate communities on different substrates; to determine whether colonization time would yield an abundance and taxonomic composition of ciliates; to assess the effect of physical and chemical factors on the distribution of ciliates in a shallow hypertrophic lake. Generally the species richness as well as the abundance of periphytic ciliates are determined mostly by the habitats and chemical properties of the waters (especially the content of total organic carbon and nitrate nitrogen), and, to a lesser extent, by the type of the colonized substrate. Moreover, exposition time of the substrates affected both an increase in the richness of periphytic ciliates and the changes in their trophic structure. At the beginning of the experiment the substrates were intensively colonized by typically bacterivorous species, yet prolonged exposition time resulted in an increasing proportion of omnivorous species.