15TH INTERNATIONAL CONGRESS OF PROTISTOLOGY

30th July – 4th August 2017
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BOOK OF ABSTRACTS

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Poster No. 106

Features of the peritrichous ciliates (Ciliophora, Peritrichia) spread in the river Uzh

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Peritrichous ciliates (Peritrichia Stein, 1859) take part in transform processes of organic substances in the freshwater reservoir biocenoses, in sustaining biological balance in the reservoirs and they are indicators of water reservoir sanitary hygienic state. The aim of the research – is to study species composition, the structure of domination of peritrichous ciliates, determine the water quality of the river Uzh for the dominant peritrichia species.

The peritrichia species composition in the river Uzh (the town Korosten') are researched. 18 peritrichia species are identified: *Epistylis chrysemydis* Bishop et Jahn, 1941, *E. plicatilis* Ehrenberg, 1831*, Campanella umbellaria* (Linnaeus,1758)*, Opercularia nutans* (Ehrenberg, 1838)*, Vorticella campanula* Ehrenberg, 1831*, V. convallaria* (Linnaeus,1758)*, V. microstoma* Ehrenberg,1830*, V. striata* Dujardin, 1841*, V. submicrostoma* Ghosh, 1922*, V. alba* Fromentel,1874*, V. banatica* Lepsi, 1935*, V. mayeri* Fauré-Fremiet,1920*, Carchesium batorligetiense* Stiller, 1935*, C. polypinum* (Linnaeus, 1758)*, Zoothamnium kentii* Grenfell,1884*, Z. parasiticum* Stein, 1859*, Vaginicola crystallina* (Ehrenberg, 1830) та *Platycola decumbens* (Ehrenberg, 1830).

In the results of the peritrichia species richness analysis in the river Uzh found increasing number of species (8-9) in the period from May to October, when conditions were the most favorable for their development. The genus *Vorticella* Linnaeus, 1767 is identified throughout the study period.

The peritrichia population density varied from 2,15 to 4,36 sp/sm^2 by seasons. Peritrichia of the *Epistylis* Ehrenberg, 1830 and *Vorticella* genuses were dominating in spring, summer and autumn. Population density of the *Epistylis* was 2,27, 2,49, 1,11 sp/sm^2 and *Vorticella* –1,93, 1,45, 0,93 sp/sm^2 in accordance. Only *Vorticella* species are founded in the winter (1,85 sp/sm^2).

In the results of the peritrichia domination structure analysis established 7 "basic" species: *Epistylis chrysemydis, E. plicatilis, Vorticella campanula, V. alba, V. striata, V. mayeri* and *V. convallaria.* They are indicators of the mezosaprobic zone.

The research results can be used for monitoring freshwater ecosystems in urban areas.

Keywords: peritrichous ciliates, Peritrichia, species richness, population density, "basic" species