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THE SPECIES COMPOSITION OF PERITRICHOUS INFUSORIA (CILIOPHORA, PERITRICHIA) TETERIV RIVER

Nowadays one of the most negative effects of human impact on aquatic ecosystems and hydrosphere is water pollution. It can lead to poisoning of the water environment, since most of the substances, which get into the water with sewage and precipitation, are toxic for aquatic organisms. The changes effect the species diversity and the structure of the hydrobiocenoses. That's why, the development of effective ways of improving the state of aquatic ecosystems is a very important task for modern science.

The water pollution assessment is carried out mainly on the basis of physical and chemical analysis. But it is not always possible to organize the environmental monitoring using the effective means of analytical chemistry, because of the complexity and high cost of chemical analysis.

The most effective are the cheapest natural biological methods of cleaning, which lie in the intensifying of natural processes of decomposition of organic compounds in aerobic or anaerobic conditions.

Among the simplest bacteria and ciliates are the most frequently used as bioassays. The peritrichous ciliates are commonly known as indicators of quality of sewage cleaning (Banina, 1983).

The purpose of the research was to determine the species composition, morphological, physiological and ecological characteristics of the peritrichous (Ciliophora, Peritrichia) in the Teteriv River.

The material for the research constirtuted the samples collected in March-December 2014. We used slides that were immersed in water 1,5-2 m deep and then exposed for 7 days. Also the basic hydrophysical and hydrochemical parameters were measured : temperature, dissolved oxygen concentration, silt index.

During the research period the dominant genus was *Vorticella* Linnaeus, 1767. We found 5 species of this genus: *V. microstoma* Ehrenberg, 1830, *V. submicrostoma* Ghosh, 1922, *V. convallaria* Linnaeus, 1767, *V. campanula* Ehrenberg, 1831,*V. striata* Dujardin, 1841, *V. alba* Fromentel, 1874 and *V. picta* (Ehrenberg, 1831) Ehrenberg, 1838. As for genus *Epistylis* Ehrenberg, 1831, it is presented by fewer species, an namely *E. plicatilis* Ehrenberg, 1831, *E.galea* Ehrenberg, 1831, *E. hentscheli* Kahl, 1935. All other genuses (*Platycola* Kent, 1882, *Carchesium* Ehrenberg, 1831, *Thuricola* Kent, 1881, *Campanella* Goldfuss, 1820, *Opercularia* Goldfuss, 1820, *Vaginicola* Lamarck, 1816) were represented by one species: *P. decumbens* (Ehrenberg, 1830) Kent, 1882, *C. polypinum* Linnaeus, 1758, *T. similis* Bock, 1963, *C. umbellaria* (Linnaeus, 1758), *O.nutans* Ehrenberg, 1838 *and V.crystallina* (Ehrenberg, 1830).

Regarding the role of individual species peritrichous, it was reflected by the analysis of structures of domination, carried out according to M. Ettl's methodology, the types *V. convallaria* Linnaeus, 1767, *V. campanula* Ehrenberg, 1831 and *P. decumbens* (Ehrenberg, 1830) Kent, 1882 were identified as the "main ones". Other species were classified as "random". The change in peritrichous dominant species is observed in particular seasons.

We identified the peak in the seasonal dynamics of peritrichous infusoria population, which was stated during the summer months: June, July and August. The depence of the compactness of the peritrichous species from the temperature, dissolved oxygen concentration, still index was confirmed statistically.

LITERATURE

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