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EFFECT OF NICKEL SULFATE WATER ENVIRONMENT ON INDICATORS OF BREATHING OF HORNY PLANORBARIUS CORNEUS (MOLLUSCA, GASTROPODA, PULMONATA, BULINIDAE) IN NORNAL CONDITIONS AND TREMATODES BY INFESTIONED

Nowadays, the toxicants are an important factor of the environment, which significantly affect aquatic organisms. Among the substances, pollutants as especially toxic and dangerous for living organisms are lehkodysotsiyuyuchi compounds, composed of heavy metal ions, which are man-made satellites of pollution. The concentration of these compounds has recently increased in the hydrosphere, affecting hydrobiological regime of lake water bodies.

In lake water bodies un and little – polute waters nickel ion concentration ranges from 0.8 to 10 mg / dm3 and in polluted waters, it is several tens of micrograms per dm3 [2]. In the body of aquatic animals the presense of nickel ions in small doses is vital. After all, this element plays an important role as a catalyst in the process of blood – formation. In large doses, it is dangerous for them, as well as for humans.

The effect of nickel ions on the physiological status of Planorbarius corneus (Linnaeus, 1758) – in aqueous medium was not previously investigated.

The purpose of our study is to determine the effect of various concentrations of nickel sulfate in water medium on the lung breathing of one of the most common grouse pulmonary gastropods P. corneus in the basin of the Teteriv River.

The material of the study is 200 copies. of P. corneus collected in the Teteriv River (Korostyshiv, Zhytomyr Region.) in September 2014.

The importance of the in lung breathing was envestigated according to the methodology of V. I. Zhadin [3]. Toxicology experiment was made according to V. A. Alekseev [1]. The results obtained were processed according to the basic methods of variation statistics [4]. Three different concentrations of toxicants – 0.01 mg / dm 3, 0.1, 1 mg / dm3 used for the primer of the environment. $NiSO4 \bullet 7H2O$ (ch.d.a) was taken as a toxicant. The exposure was 2 days. In 24 hours used solutions were replaced with fresh ones.

It was found out that nickel sulfate in concentrations used in our experiment is dangerous for the animals lives. Interestingly, all parameters except the length of "breathe – in" change in the process of our experiment. For the present we can’t produce any explanations of this phenomenon. At the same all indicators of pulmonary respiration these for contaminated shellfish grew. We consider this as the manifestation of their protective – adaptive process.

LITERATURE

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