Biochemical changes of an organism of *Apodemus flavicollis* (Rodentia: Muridae) under conditions of environmental anthropogenic pollution by heavy metals in northern areas of Ukraine

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Abstract. Man-caused chemical pollution of ecosystems is an actual problem at the present. Kyiv region is one of the most contaminated in Ukraine. 443 industrial enterprises are exposing as sources of air pollution in Kyiv region. The present research dedicates the integral assessment of biochemistry indexes of nature populations of rodents under conditions of environment pollution by heavy metals. Researches were conducted on nature population of yellow-necked mouse (*Apodemus flavicollis* Melchior, 1834), which is living on territories with different level of anthropogenic pollution. Environment of this species closely concerned with soil bedding. Therefore A. flavicollis may come as a biomonitor of man-caused pollution of environment. The raised content in soils of mobile forms Pb, Cd, Cr, Ni and Co was revealed on distance of 500 m to the South-West from Tripillya Thermal Power Plant (Kyiv region, Ukraine). That's considerably (3–5 times) exceeds levels for territory of Kaniv Nature Reserve (Cherkassy region, Ukraine). Territory of National Nature Park "Holosiivsky" (Kyiv, Ukraine) characterized by rather increased content of active form of researched heavy metals especially Pb. Increase of the concentration of diene conjugates (3–7 times) and malonic dialdehyde (2–4 times) in yellow-necked mouse liver of under pollution by heavy metals has been discovered. Insignificant increasing of content of Schiff basis in liver cells of rodents in region of impact of Tripillya TPP (in 2 times in spring and in summer, in autumn – in 2.5 times) was detected. Seasonal dynamics of the maintenance of lipid peroxidation has been revealed. The registered changes of biochemical indicators testify about presence ecological-biochemical stress in an organism of the yellow-necked mouse in the district of influence of Tripillya TPP.