

## **Amphibians under conditions of anthropogenic landscape**

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At the present time, when there are no landscapes, not subjected to the anthropogenic influence, the problem of adaptive variability of amphibians to the forefront of scientific research, as it allows to reveal the mechanisms by which animals adapt to the new conditions of existence. Marsh Frog is a convenient facility for the study of the results of the effects of anthropogenic pollution, because it is widespread, in various stages of ontogeny in most water bodies in Kazakhstan, Kyrgyzstan and neighboring countries.

The aim of this study was to reveal the variability of basic ontogenesis characteristics, analyze the variability of abundance and population structure of the lake frog. A result of research identified a range of adaptive changes under the action of anthropogenic factors. Under the influence of anthropogenic pollutants detected increased mortality of adults, the accumulation of pollutants in large numbers in the adult body, understating the survival of embryos, morphological and morpho-physiological changes in body size. All of these reactions can manifest themselves both in isolation and in a complex and have different importance for the animals. The adaptive changes ensure the survival of amphibians in the contaminated environment and are the basis of microevolution process in these specific conditions, whereas the pathological changes caused a reduction in the number and density of population. In the early stages of ontogenesis are expressed in these reactions increased mortality of eggs and larvae, appearance anomalies elongation, usually period of metamorphosis, changing sizes metamorphosed individuals.