

The population of lizards and snakes on border of Europe and Asia

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The territory of Middle Ural was investigated in 2000-2005. Four populations of common lizard (*Zootoca vivipara*) and four populations of adders (*Vipera berus*) from vicinities of the Ekaterinburg city agglomeration were analysed. About 1500 animals were found and 650 individuals were studied in order to determine their morphological variation and distribution in the territory of Middle Ural. The study also intended to establish dependence between the population features of both reptiles and the anthropogenous transformation of environment.

Besides usual descriptive procedures when processing the received materials (definition of age on layers in bones, studying of external morphological attributes and others), we also applied the method of the morphophysiological indicators, described in the scientific literature (Shwarts et al., 1968). The basic morphological and morphophysiological parameters of adults were investigated; data on density and number of individuals in population were specified.

The results obtained allow specifying distribution of *Z. vivipara* and *V. berus* on the Middle Ural. New data on phenological features of these species are established. Recommendations for conservation of abundance and biodiversity of the reptiles are proposed. The most vulnerable periods of life cycle of various kinds of reptiles are characterized and optimum strategy of protection is provided.

Results indicate that on these reptile populations do not depend only on natural factors, but also anthropogenous activities are of strong influence. Interestingly, the index of heart of the viviparous lizard correlates with a degree of their anxiety and similar results were recorded for adders.

