Geographical variation of duration of larval development and body size in *Rana temporaria* (Ranidae, Anura) metamorphs

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Abstract. With the help of artificial inter-population crosses of adult *Rana temporaria* from four spatially remote populations of the European part of the species' range, the magnitude and direction of changes in metamorphic traits were estimated. The maximum values of the size of metamorphs at the end of metamorphosis and the rate of larval growth were found in the descendants of the parents of Belarusian populations (Turov and Minsk) and, as a rule, in hybrid offspring with the participation of the parents of these populations, when crossing with individuals from the population of the Moscow region (ZBS). Outbreeding depression of the time of larval development before the end of metamorphosis and growth rate was revealed when crossing ZBS females with Turov males. In a population from a region with a relatively low climatic temperature (Kirov), the minimum size of metamorphs was revealed, but not the time of larval development. In most crosses, a relatively greater contribution of non-additive genetic variability, as well as the maternal effect associated with the difference in egg sizes, to the formation of inter-population differences was revealed. The inter-population variability of studied traits related to fitness is often directed along the gradient of environmental conditions, and not counter-gradient (as should be expected based on the conception of counter-gradient selection), which is explained by the choice of different growth and development strategies in tadpoles formed in southern and northern populations.

Keywords: *Rana temporaria*, premetamorphic growth, body length of the metramorphs, among-population variation

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