

Ecological niches breadth analysis of *Darevskia* (Lacertidae, Reptilia) parthenogenetic lizards with various scenarios of clonal lineage formation in populations

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Abstract. In this work, we tested the conditions for fulfilling the concept of geographic parthenogenesis by a comparative analysis of the breadth of the ecological niches of parental and parthenogenetic lizards of the genus *Darevskia* with a various number of established hybridization events. Estimates of the breadth of ecological niches of the parthenogenetic species *D. rostombekowi* $N_b = 0.6(\pm 0.08)$ and parental bisexual species *D. raddei raddei* $- N_b = 0.86(\pm 0.9)$, *D. portschinskii* $- N_b = 1.21(\pm 0.17)$ showed that for this parthenogenetic species one of the most important conditions of geographic parthenogenesis is fulfilled, i.e. the niche breadth of the parthenogenetic species is smaller than its parental bisexual species. The niche breadth of another parthenogenetic species *D. dahli* $N_b = 0.86(\pm 0.12)$ is smaller than that of the «paternal» species *D. portschinskii* $- N_b = 1.21(\pm 0.17)$, but larger than that of the «maternal» species *D. mixta* $N_b = 0.48 (\pm 0.08)$, which only partially agrees with the condition of geographic parthenogenesis. This mismatch is due to the fact that *D. dahli* was formed as a result of several independent hybridization events, which resulted in the formation of multiple clonal lines derived from different parental pairs of *D. portschinskii* and *D. mixta*.

Keywords: geographic parthenogenesis, clonal species, *Darevskia*, reticulate evolution

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