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# PROGRAM & ABSTRACTS



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**WHAT *Triturus* NEWTS CAN TELL US ABOUT DIVERSIFICATION AND EVOLUTION WITHIN HYBRID ZONE?**

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The natural hybrid zone of *Triturus ivanbureschi* and *T. macedonicus* in the central Balkan Peninsula with a specific species displacement scenario provides an excellent background for evolutionary studies. We set up a common garden experiment for breeding and reciprocal crossing of these two species from populations out of the hybrid zone. We collected data on life-history and morphological diversification throughout ontogeny. Our results showed that there are no pre- or postzygotic reproductive barriers, with proven fecundity of F1 generation in all crossings. Reproductive characteristics and survival rates were similar for both species and their hybrids. Hybridization significantly affects morphological variation, with hybrids showing distinct tail and head morphology compared to parental species. The head shape ontogeny from hatchling to metamorphosed stage was used to explore postembryonic ontogenetic trajectories and to test whether metamorphosis acts as developmental constraint. Differences in the developmental rate of the two species were found. Hybrids had intermediate values relative to parental species. Also, obtained results revealed that metamorphosis cannot be regarded as a developmental constraint for salamander head shape. Overall, results obtained from the common garden experiment provided an insight into evolutionary mechanisms that lead to divergence from the common ancestral developmental program and evolution of ontogenies in the hybrid zone.